THE EFFICACY OF PHARMACEUTICAL SALES TRAINING--
A CASE-STUDY EXPLORATION

by

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ABSTRACT

Adult education pervades the workplace in many different ways. Corporate training, in particular, is one of the most significant forms of adult education in terms of activity and funding. North American companies spend billions of dollars delivering training programs annually, but it is not clear whether training programs are effective and how they influence their sponsors. The objectives of this qualitative case study research are to: understand how the context of a Canadian pharmaceutical company shapes its' training initiatives; determine whether, how and why a pharmaceutical sales training program (New Representative Training) was perceived to be effective; and assess the influence of these factors on the company's performance.

Results from this study suggest that New Representative Training was perceived, by study participants, to be effective because it helped enhance pharmaceutical sales representative work performance (e.x., more focussed and organized physician details) due to improved confidence and indirectly, the company philosophy (e.x., a different attitude and appreciation for the company and its employees). Nevertheless, an improved understanding of the philosophy, assumptions, and processes of this company suggest that training is only one part of an integrated system that affects performance, regardless of its' efficacy. Therefore, training, like workplace learning and evaluation, cannot claim sole or specific responsibility for the performance improvement of the company

Research findings contribute to workplace learning, training, and evaluation literature by elucidating how the context surrounding an organization shaped its' learning and performance.

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CHAPTER ONE
INTRODUCTION

The gulf between the concepts of learning and working has narrowed in response to rapid technological, structural, cultural, social and economic shifts (Caldwell, 2000; Carey, 2000). As a result, the workplace has emerged as an immensely significant site of adult education (Caldwell, 2000; Rainbird, 2000; Senker, 2000). In terms of funding and activity, workplace training is the most pervasive form of adult education today (Caldwell, 2000; Eurich, 1985). Yet, learning in the workplace is complex. The work environment is repositioning from fixed, hierarchical, and function-oriented to fluid, process-oriented, and organic, or "knowledge-intensive" (Casey, 1999; Brown, 1998; Despres & Hiltrop, 1995). Further, continuous pressure to up-skill or upgrade is compounded by the fact that corporations provide the architecture for adult education so learner's needs and interests are secondary and perhaps competing with the objectives of their sponsor (Rainbird, 2000).

Increased reliance on workplace learning and training has spawned interest and research from diverse disciplines including education and training, business, psychology, sociology, and political science (Rainbird, 2000, Boud & Garrick, 1999). This surge has resulted in a literature that is rich, diverse, and multifaceted, however the topic defies a universal theory, model, or framework (Boud & Garrick, 1999).

More than $365 million was spent on formal training and development of employees in the United States in 1998 (ASTD, 2000) but it is not clear whether training programs are effective and how they influence their sponsors. There is a need for further research and a framework to help elucidate the relationship between workplace learning, training, evaluation and their influence on organizational performance.

Purpose Statement

The objectives of this study are to:

1. Gain a deeper understanding of the context or assumptions, processes, and

   philosophies driving workplace learning, training, and evaluation initiatives in a

   specific pharmaceutical company.

2. Determine how, whether, and why a pharmaceutical sales training program was

   perceived to be effective.

3. Assess how the factors listed above influence this organization's performance.

Workplace Training Research in Context

Common types of workplace training are managerial, sales, and technical training.

Ralphs and Stephan (1986) found that 91% of Fortune 500 firms provided managerial

training, while only 75% and 44% of the firms provided sales and technical training

respectively. The only published study that compared the effectiveness of training

investigated a pharmaceutical company over a period of four years (Morrow et al., 1997).

Results of this quantitative study showed that managerial training had less effect and

economic utility than sales and technical training due to differential training effects and

variations in training costs. Separate studies show that sales training accounted for the

highest number of training hours for all employee groups; roughly 35 hours each year,

even though it utilized only 15% of annual training budget dollars (Erffmeyer & Johnson,

1997). These studies confirm a better return on investment with sales than managerial

training (Morrow et al., 1997) and suggest a need for qualitative research on

pharmaceutical sales training to further appreciate how, whether, and why sales training

is effective.

The Researcher in Context

My interest in training effectiveness research started in July 1996 when I decided to personally resolve the incongruity between continued workplace training investment, and unfulfilled training experiences described as "that was a great class, but" syndrome (Rossett, 1997). In September 1996, I joined the pharmaceutical industry as a Sales Representative in a small company. It was my first experience with pharmaceutical sales training. I then moved to a medium-sized company and was promoted to Associate Product Manager, Marketing, where I was asked to deliver product-oriented sales training. Before joining the company under study, I worked for a large pharmaceutical company, an amalgamation of the former company and another, as Product Manager.

My role as a Product Manager influenced this research because my main objective was to maximize the commercialization of company products. I was in regular contact with key stakeholders from the Sales, and Learning and Development departments. I joined the company under study in May 2000, because I thought that the company's philosophy was refreshing, and could help reach the aforementioned objective if it was effectively transferred from senior management, via employees, to company customers

Without question, these motives and previous experiences shaped this qualitative research. Specifically, I was skeptical about the long-term effectiveness of corporate training yet I had a vested interest in ensuring its success. This perspective shaped the entire study from the objective, design, methodology, site and participant selection, interview questions, and the study framework. Even though I tried to minimize these biases and maintain objectivity, I would be remiss if I did not acknowledge them and their influence.

Pharmaceutical Sales Training in Context

Physicians continue to be, for the most part, revered by patients and the community as a whole because they are "healers." In reality, most physicians are overwhelmed with paperwork, appointments, and the dizzying pace of new and different treatments marketed to improve patient quality of life. Further, patients are taking a more active role in healthcare management. Information about treatments from television, magazines, and the world wide web is more accessible than ever before. All of these advertising mediums contain a call to action: buy our product and you will feel better. This promise drives the patient to see a physician; the gatekeeper to improved health and lifestyle. Thus, physicians are pressured to stay current with new developments in healthcare in the effort to maintain their revered status and improve patient outcomes.

Physician information sources about novel treatments come from medical journals, conferences, continuing medical education, clinical trial involvement, clinical trial packages, websites, and pharmaceutical sales representatives. Every one of these sources is controlled or sponsored directly or indirectly by the pharmaceutical industry. Therefore, until physicians or their colleagues have personally "trialed" a medication, they must rely on the pharmaceutical industry for product information. Perhaps as a result of this influence, some physicians view the pharmaceutical industry with skepticism. They question their objective as corporate promoter in the quest for profitability. Others view the industry as a partner in improving patient quality of life, and a resource in terms of research and development, sponsorship, information, and education.

One's viewpoint of the pharmaceutical industry affects the value and worth placed on the ambassador of the industry: the pharmaceutical sales representative (PSR). In fact, physicians are more likely to form positive impressions of the pharmaceutical industry and PSRs when companies are focussed on patients rather than profit, when they feel that their needs are understood, and when PSRs behave in an accurate, trustworthy, ethical, and non-aggressive manner (Creyer & Hrsistodoulakis, 1998). Motives of a pharmaceutical company-- profit or patients-- have implications for corporate activities such as training because pharmaceutical sales training programs are designed to meet corporate objectives. Without question, pharmaceutical companies are focussed on meeting profit expectations, however different perspectives and values shape how they accomplish their objectives. It follows that companies who are physician-centred appreciate and understand the importance of customer frame of reference as opposed to companies who are product-centred. Physician-centred pharmaceutical companies believe that physician needs, experiences, and values are an integral component of the sales process as opposed to solely concentrating on fulfilling their own objectives. This research focuses on a pharmaceutical company with a physician-centred philosophy.

Study Significance

In general, workplace learning and training are believed to be effective. Little is known about how, whether, and why, despite the billions of dollars North American organizations spend annually on delivering adult education and training programs. The findings of this research should contribute to workplace learning, training, and evaluation literature by clarifying how company's context shaped their organizational learning and performance.

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CHAPTER TWO
LITERATURE REVIEW

To more deeply understand the assumptions, processes, and philosophies driving workplace learning, training, and evaluation initiatives in a specific pharmaceutical company, six relevant bodies of literature were reviewed. Part one examines the literature on adult education, workplace learning, training, evaluation, and effectiveness. Part two of the literature review explores the relationship between physicians and the pharmaceutical industry, with a focus on physician and pharmaceutical sales representative (PSR) learning. The goal of these sections is to help inform how, whether and why a specific pharmaceutical sales training program was considered to be effective.

Part One

Adult Education

The purpose of adult education is related to one's philosophy or frame of reference (Elias & Merriam, 1980). A learner may see adult education as an opportunity to develop intellect, enhance personal growth and development, or change behaviour. Alternatively, a sponsor, such as a labour union, might see education as a way to promote social, political, or economic change. In North American society, the aims of adult education are often linked to government initiatives to improve prosperity and quality of life (Rose, 1999). For example, in the United States, the Adult Education Act of 1966 was largely regarded as a means to achieve government policy goals such as economic development and eradication of unemployment (Rose, 1999). Similarly, in the early 1990's, a Canadian government publication titled, "A lot to learn: Education and training in Canada" further reinforced the point;

Education affects our lives in many ways. For most of us it has a profound effect on the kind of jobs we aspire to, the money we make, and the quality of life we enjoy. Skill development is increasingly more important than ever in a global economy in which competitiveness and productivity depend increasingly on brains, not brawn. The choice for Canadians is clear: they must develop their skills or accept low wages. (Economic Council of Canada, 1992, p. 1).

Indeed, the assumption that the higher the level of education and training, the more benefits society derives, still holds true today (Statistics Canada, 2001). Consequently, adult education has been utilized as a political and economic tool to shape society. Further, government and corporate stakeholders have convinced the majority of society that prosperity is in their best interest and adult education is a viable way to fix societal and workplace problems along the road to global competitiveness.

Since adult education is, more than any other level of education, seen as a solution for the problems of society such as illiteracy, skill obsolescence, unemployment, and technological change, government funding is substantial. High profile American families and businesses such as Carnegie, Kellogg, and Ford have created foundations to proliferate their influence and educational good will (Selman & Dampier, 1991). Adult education is also a necessity in the workplace, and in fact, the corporate sector is one of the largest providers of adult education and supporters of lifelong learning (Caldwell, 2000; Eurich, 1985).

In summary, millions of adults are educated in North America each year. Some are enrolled in remedial adult basic education or English as a Second Language (ESL) courses. However, the majority of adults are learning yet another new job or skill in

corporate classrooms (Eurich, 1985). The proliferation of adult education in corporations

is related to two main issues: the changing marketplace and the need to advance corporate

values, cultures, and philosophies. Therefore, organizational needs drive adult education

initiatives, not the needs of individual learners (Rainbird, 2000). Clearly, one of the

ongoing challenges facing adult educators today is maintaining the fields' responsiveness

to stakeholder interests (i.e., corporations) while staying focussed on the learner, not the

seductive call of the workplace (Caldwell, 2000; Rose, 1998).

Workplace Learning and Training

The United States invested almost 10% of its gross domestic product on

education, a total of $619 billion dollars, of which 10% or $60 million was spent on

workplace training (U.S. Department of Education, 1993; ASTD, 1993). Additionally,

U.S. corporate training expenditures increased from 1.5% of payroll in 1996 to 2% in

1998; a 33% increase in two years (ASTD, 2000). In Canada, there is a strong

correlation between increased training and improved performance (ASTD, 2000).

The increased pace of technological change, heightened competitiveness, and

globalization have pushed the issue of skills to the forefront in recent years (Statistics

Canada, 2001, Rainbird, 2000). In the new economy, simple machines are replaced by

advanced technology, and physical work is replaced by knowledge work (Marquardt et

al., 2000). Corporations, buttressed by this power and intelligence, are forced to

regularly renew themselves in the race to keep up with more agile competition. Human

resources, and their capacity to learn and work, are the decisive factor in the changing

marketplace. Thus, human resources management is a strategic consideration in adapting

the workforce to the marketplace (Rainbird, 2000; Hansen, 2000; Dunlop, 1992; Guest, 1987).

It is argued that, "the rate at which individuals and organizations learn may become the only sustainable competitive advantage" (Stata, 1989, p. 64) and "the hallmark of tomorrow's most effective organizations will be their capacity to learn" (Adler & Cole, 1993, p. 85). In fact, in the late 1980's, corporate universities became more common as a way for corporations to strategically manage organizational learning and development (Meister, 1998; Moore & Seidner, 1998). General Electric launched their institute in 1955, and since then, other major companies such as General Motors, Arthur Andersen, Bank of Montreal, Disney, Eaton's, Intel, McDonalds, Harley-Davidson and MasterCard launched their own corporate universities to ensure their survival, and gain competitive advantage in the marketplace.

Workplace training also plays a role in communicating and reinforcing company values, culture and philosophies (Guest, 1987). The frenetic pace of change necessitates that employees clearly understand their role in the workplace. Acculturation of corporate culture and values ensures identification, "fit" and a shared mindset in the vision to build a flourishing workforce to meet the strategic needs of the company. Moreover, this vision can transfer from employees to customers, who gain an improved understanding of the company and its position in the marketplace (Meister, 1998). Hence, corporate training can be a strategic tool to indoctrinate employees, customers, and sustain or gain a competitive advantage in the marketplace (Carey, 2000; Moore & Seidner, 1998; Guest, 1987).

In summary, workplace learning and training is focussed primarily on the government and corporate agendas to become more competitive. Still, a key concern is that the lifelong learning agenda has been co-opted by corporations and the tension between two prominent lifelong learning agendas: competitiveness and development, has heightened as a result (Caldwell, 2000; Rainbird, 2000).

Workplace Training Evaluation

The evaluation process, during which the value or success of a program is determined (Scriven, 1983a), is considered by many training theorists and practitioners to be an exceedingly subjective, guilt-ridden, politically charged, neglected, and overrated element of an educational program (Knowles, 1980; Guba & Lincoln, 1989; Brookfield, 1986). In particular, training evaluation is concerned about whether or not training initiatives meet training objectives such as improved performance, knowledge, and skills.

Reasons to evaluate training are both practical and political. For example, training program justification, verification of success or failure, improvement, relevance, and participant satisfaction are common rationales for conducting training evaluations (Holly & Rainbird, 2000; Brown, 1998; Sanders, 1994; Parry, 1996). Evaluation is also used to assess a training department's worth or contribution to the "bottom-line" (Blanchard & Thacker, 1999; Geber, 1995; Phillips, 1997). Concerns about training evaluation include: investment of time and money when benefits are minimal or difficult to measure; damaging outcomes; claiming credit for performance changes when there are many other factors at play (Parry, 1996); and lack of interest in the results (Blanchard et al., 2000). Why then, should practitioners and theorists concern themselves with training evaluation when there are debates about the value of evaluation?

One prominent adult education theorist thought the need for training evaluation was "somewhat akin to deciding to take exercise more regularly. Both are resolutions that are deemed important and necessary, but both are, for whatever reasons, rarely implemented" (Brookfield, 1986, p. 261). The veracity of this statement is challenged by recent survey results of the evaluation practices of 500 American companies. Responses were categorized according to the "Four Levels of Evaluation" model that outlines participant reaction, learning, behaviour change and results as the most important indicators of effective training (Kirkpatrick, 1998). Three quarters of participants (77%) evaluated reaction, one-third (36%) measured learning, and a small minority (15% and 8% respectively) measured behaviour and results (ASTD, 2000). Additionally, a survey of 200 Canadian organizations indicated that most respondents (90% and 96% respectively) evaluated management and non-management training. However, in a separate survey, results showed that more than half of Canadian organizations are not evaluating training at the behavioural or results level (Blanchard et al., 2000). This discrepancy uncovered two assumptions about training evaluation. First, all training programs should lead to improvements in all four levels: reaction, learning, behaviour and results. Second, "four level" evaluations should be conducted on all training programs.

In summary, training evaluation involves a judgment of success or worth of a particular program, and occasionally an entire training department. Despite the concerns about evaluation, a number of North American organizations are conducting training evaluations to some extent. However, the perceived value of training evaluation seems to

depend on one's perspective about the contribution training makes to organizational performance.

Training Evaluation Models

The objective of the next section is to review relevant models for evaluating training: Four Levels of Evaluation, Return on Investment, and Impact Evaluation.

Four Levels of Evaluation

The work of Donald Kirkpatrick provides a historical background of corporate training evaluation. His four levels were first introduced in 1959 as a way to clarify the meaning of evaluation. Almost 40 years later, his classic model is believed by some to be "the most convenient way yet to determine the goodness of job-related training" (Gordon, 1991, p. 19).

According to Kirkpatrick (1998), the purposes of evaluation are to determine the effectiveness of a training program, justify training investment, and improve training programs. Level one, titled reaction, measures the learner's satisfaction with a training program. Level two, gathers information on assessments of learning, attitudes and beliefs. Level three assesses behaviour, or the transfer of training to work. The fourth level evaluates the results of training.

The four levels of evaluation are listed sequentially to discourage detours around one level to reach the next. It is not necessary to complete all four levels because each level provides a limited assessment of training effectiveness on its own (Kirkpatrick, 1998). Nonetheless, some theorists believe that organizations will not be able to fully understand the effectiveness of a training program unless all four levels are evaluated (Hamblin, 1974, Newstrom, 1978, Kirkpatrick, 1998).

In summary, the four levels have been invaluable to initiate thinking about training evaluation. This evaluation model has been criticized for not providing details on implementation, however its simplicity and comprehensiveness enhance its applicability. Additionally, the four level model is generally accepted by theorists (Blanchard & Thacker, 1999; Dionne, 1996; Kirkpatrick, 1998; Phillips, 1997). Still, it needs further development to capture the organizational, social, political and other contextual variables that affect training (Brinkerhoff, 1988; Bernthal, 1995).

<div align="center">Return-On-Investment (R.O.I.)</div>

Jack Phillips, the leading advocate of R.O.I. evaluation, proposed a fifth level based on perceived shortcomings of the four levels of evaluation (1983). According to Phillips, level four ends at measuring training-initiated business results whereas level five, R.O.I., compares program benefits to costs. Even though only 5% of companies conduct R.O.I. analysis (Phillips, 1996), training practitioners concede that they need to show training R.O.I. to maintain training funds and boost the credibility of the training department (Phillips, 1996). A R.O.I. analysis is typically presented as an annualized value and can continue to capture benefits well after the training is complete.

The R.O.I. process is a logical, step-by-step approach that begins with collecting data, isolating the effects of training, converting data to monetary value, and then calculating the tangible and intangible R.O.I. (e.x., cost savings and increased organizational commitment). The result is an assessment of the overall monetary value of training. First, all training costs are tabulated such as materials, participant salaries and benefits, and facilities, meal costs. These training costs are subtracted from training benefits such as increased sales, teamwork, and job satisfaction. Converting benefits into

monetary values is difficult and its accuracy and credibility is influenced by the reputation of the data, its source, and motives of the evaluator (Phillips, 1983). R.O.I. data can help improve a training program, inform management, and augment an evaluation database.

The main criticism of the R.O.I. model is controlling extraneous variables that affect performance and R.O.I. The addition of a control group may minimize this threat. Phillips admits, "most R.O.I. figures aren't precise, though they tend to be as accurate as many other estimates that organizations routinely make" (1996, p. 46). Methodology also limits the validity and reliability of the results because many R.O.I. measures are not standardized.

In summary, the R.O.I. model builds on the four levels model by advancing the idea that training can be accurately evaluated. The biggest challenge for this model is to show the suggested cause-and-effect relationship between the training program and improved performance in the effort to further enhance the credibility of this bottom-line approach.

<div align="center">Impact Evaluation</div>

According to Robert Brinkerhoff (1987), training should have an impact or direct benefit to the organization that sponsors it because it is an instrument for improving employee and organizational performance. This "fundamental logic of training" suggests that training produces learning, but not performance improvement. Instead, the application of learning, and many factors that shape it, produce performance improvement and eventually impact (Brinkerhoff, 1987; Rummler & Brache, 1994; Robinson & Robinson, 1989). Any effort to assess the impact of training by isolating its

effects misses the point: impact is beyond the scope of a single training program. Rather, training should be connected to organizational needs and processes in the effort to gain a deeper understanding of the underlying training influences such as context, stakeholder goals, needs and interests (Holly & Rainbird, 2000; Brinkerhoff, 1987). In summary, the impact evaluation model posits that training is not an event but a process that should involve a systemic view of the role of training in performance improvement. This model challenges the current practices of most training practitioners who believe that they should evaluate the results of specific training programs to justify their departmental activities.

In conclusion, the three training evaluation models reviewed in this section highlight the contributions of some of the most influential thinkers and practitioners in training evaluation. Even though Kirkpatrick's four levels is the de facto model of choice, R.O.I., and impact models augmented his contribution and illuminated some areas of considerable improvement. In this study, Kirkpatrick's model was used to evaluate participant reaction to pharmaceutical sales training. Brinkerhoff's model also informed the study, specifically his suggestion that training and evaluation of its effectiveness cannot be isolated from organizational context.

Training Effectiveness

A search of training effectiveness literature demonstrated that there is considerable theoretical research, but a scarcity of research examining the effectiveness of specific training programs. Other researchers have also acknowledged the modest link between training effectiveness theory and practice (Tannenbaum & Yukl, 1992; Latham, 1988). Training effectiveness is focussed on the factors that affect training programs

such as barriers and facilitators in transfer of training (Ottoson, 1997; Fox, 1994; Baldwin & Ford, 1988), the impact of learner motivation (Tannenbaum & Yukl, 1992; Noe, 1986), and the influence of organizational context (Campbell, 1989) and strategy (Jackson et al., 1989). One noteworthy study investigated the effect and utility of managerial and sales/technical training in a Fortune 500 pharmaceutical company (Morrow et al., 1997). This research compared different types of training programs to assist corporate decision-makers with allocation of training resources. Evaluation of eighteen training programs, including pharmaceutical sales training, demonstrated great variability in program effectiveness. Subjects were measured before and after training to determine training effect in terms of variability of performance and behaviour change. The results of this study showed a positive effect, although managerial training demonstrated lower utility (mean return-on-investment of 84%) than sales/technical training (mean ROI of 156%) due to differential training effects and variations in training costs. In summary, there is a need for research to progress beyond the assertion that training participants improved their knowledge, skills and performance: It should also answer the fundamental questions, how and why does training contribute to the functioning of the organization and the beneficiaries of training?

Since this research involves the pharmaceutical industry, it is imperative to investigate the relationship between industry and medicine, specifically pharmaceutical sales representatives (PSR) and physicians.

Part Two

Physician Interaction with the Pharmaceutical Industry

The relationship between physicians and the pharmaceutical industry influences the development of pharmaceutical sales training programs and pharmaceutical sales representative (PSR) learning. This next section will discuss this unusual association.

The sale of pharmaceuticals is a complex process because physicians do not buy prescription products directly from PSRs. Rather, the objective of the pharmaceutical industry is to convince physicians, through medical information and other means, to prescribe company products that will be sold by pharmacists directly to patients.

According to a survey of American physicians, the three most significant sources of medical information on prescription drugs were PSRs, medical symposia and conferences, and medical journals (Creyer & Hrsistodoulakis, 1998; Huston, 1993). Similarly, Canadian primary care physicians chose PSRs as either the first or second most frequently used medical information source (Angus Reid Group, 1991). Not surprisingly, 85-90% of North American physicians see PSRs (Lexchin, 1993) and on an average week in Canada, physicians meet face-to-face with two PSRs, see 108 patients, and write or renew approximately 90 prescriptions (IMS, 1999).

The "non-pharmacological basis of therapeutics" is a term used to describe the influential sources that shape a physician's decision to prescribe a medication (Mazzullo 1972). Physician "detailing" is cited as a one of these sources but inconsistencies abound in the literature as to its level of influence. Positive influences of detailing included implementing a useful and cost-effective way to improve therapeutic decisions (Avorn & Soumerai, 1983), providing accurate and useful information about drugs (Creyer &

Hrsistodoulakis, 1998; Caudill et al., 1996), and financially supporting medical

conferences and local meetings (Caudill et al., 1996). Negative influences of physician

detailing included increasing prescribing and drug costs (Caudill et al., 1996), providing

little educational value (Hodges, 1995; McKinney et al., 1990), and "inappropriately"

changing prescribing behaviour (Lurie et al., 1990; Peay & Peay, 1988; Avorn et al.,

1982).

Regarding other significant sources of medical information such as symposia,

conferences, and medical journals; Canadian physicians were more likely to attend

industry-sponsored symposia, on average 5.2 times in the previous 2 years, than

continuing medical education courses; only 1.9 times in the previous 2 years (Lexchin,

1993). Finally, although scientific journals, colleagues, and clinical drug trials were

considered to be significant sources of medical information (Lexchin, 1993; Guyatt,

1994), there is little support of their use, beyond opinion, in the literature.

In conclusion, the literature supports the notion that physicians are influenced by

the pharmaceutical industry (Caudill, et al., 1996; Andaleeb & Tallman, 1995; Guyatt,

1994; Lexchin, 1993; McKinney et al., 1990; Avorn & Soumerai, 1983; Avorn et al.,

1982). The same literature also highlights a contradiction: although physicians regularly

participate in pharmaceutical industry-sponsored programs, they question these sources in

terms of their credibility, integrity, needs sensitivity, and influence on their behaviour

(Slotnick & Kristjanson, in press; Creyer & Hrsistodoulakis, 1998; Hodges, 1995;

Lexchin, 1993; McKinney et al., 1990). Physician resistance of this influence on their

behaviour can be explained by ignorance or reluctance to admit that commercial sources

may be more compelling than scientific sources (Avorn et al., 1982). An editorial

comment, one decade later, supported this finding: "There are few beliefs in current medical practice that are held with greater passion than physicians' confidence in their ability to resist the influence of the pharmaceutical industry on their professional behaviour" (Woollard, 1993, p. 403). The pharmaceutical industry is currently product-centred because physicians respond in a relatively positive manner to this approach. However, if the industry were physician-centred then physicians should respond more positively in kind (Creyer & Hrsistodoulakis, 1988; Andaleeb & Tallman, 1995).

The references selected in the preceding literature review were chosen from major peer-reviewed journals published in North America. Articles were either reviews of existing literature or surveys of random samples of physicians. Potential limitations include use of volunteers and non-representative samples.

Physician Learning

The purpose of this section is to review the physician learning process, identify types of physician learning activities, and pinpoint ideal physician learning situations; that is, circumstances that lead to a change in practice-related behaviours. An improved understanding of how physicians learn will inform the PSR training process because the main objective of PSR training is to educate PSRs to change physician behaviours.

Beforehand, it is important to review different types of knowledge that are involved in the physician learning process. Knowledge is distinguished into two types: procedural and declarative (Anderson, 1983). Procedural knowledge is how to do or perform something (i.e., stitches) and declarative knowledge is understanding or knowing the situation (i.e., the patient's laceration will not heal properly without stitches). Indeed, many skills involve the integration of both procedural and declarative knowledge,

however, when a skill or procedure is repeated, then sometimes only procedural knowledge needs to be accessed (Anderson, 1983). Therefore, procedural knowledge is often the basis of expertise in medicine unless the physician is an academic specialist or does not practice often. The challenge to physicians and medical educators is to translate academic, declarative knowledge into procedural knowledge to facilitate the uptake and application of new information into everyday clinical practice (Cervero, 1990).

<div align="center">Physician Learning Process</div>

The book, "Changing and Learning in the Lives of Physicians" (Fox et al., 1989) opens with the following comments:

Physicians are good subjects for the study of change. Their attitudes, practices, and lifestyles are products of long, intense education and socialization, which continue even after their formal training ends. The technical nature of their work means that the very basis of their practice, their knowledge, and skills, are constantly changing as their science expands (p. 1).

Pressure to change (and learn) comes from a number of sources including physicians themselves, patients, governments, industry, self-governing associations, and peers (Fox et al., 1989). Not surprisingly, the goal of many practicing physicians is to "attempt to put matters right rather than uncover the truth." (Cervero, 1990, p. 86).

A review of physician learning theories uncovered two distinct bodies of research describing the ways physicians learn. The first centred on what type of problem motivates a physician to learn; specific or general problems (Slotnick et al., 1998; McClaren et al., 1998). An example of a specific problem is how to titrate the dose of a

medication whereas a general problem is how to use a new class of therapy. Depending on the type of problem, specific or general, learning takes a semi-structured or formal format (Jennett et al., 1994). The former may involve discussions with colleagues or consulting journal articles on a specific topic, and the latter could encompass attending conferences or continuing medical education courses for more general knowledge. Resultant changes in behaviour are related to the size and type of problem; incremental changes or "adjustments" flow from specific problems and semi-structured learning, while grand changes or "redirections" are associated with general problems and more formal learning (Fox et al., 1989; Slotnick, 1999).

The second group of research described learning episodes, or the stages a physician moves through from the beginning to the end of a problem (Geertsma et al., 1982; Putnam & Campbell, 1989) and the learning and change model (Fox & Bennet, 1998; Fox et al., 1997). This research proposed three stages in physician learning: (1) deciding to take on a learning task, (2) learning new skills and knowledge, and (3) gaining experience by practicing what was learned.

These two bodies of literature were later integrated when Slotnick (1999) interviewed thirty-two physicians about their learning experiences. The result was the addition of a pre-stage to account for the habit of scanning for potential problems, and connection of the stages of learning to the nature of the problem, specific or general.

Slotnick & Kristjanson (in press) conducted another study with physicians which resulted in the following three adult learning principles: (1) Practicality- physicians want to learn solutions to problems they already have, (2) Participation- physicians want to

participate in their own learning, and (3) Multiple demands- physicians have multiple demands on them and learning should accommodate this fact.

In summary, the type of problem that precipitates learning is central to physicians' movement through the stages in that a specific problem will likely be resolved more quickly and easily than a general problem that requires a more deliberate approach.

Study limitations include the validity of self-reporting and the need for study replication. Further, interview participants were not asked about their assumptions concerning the nature of knowledge; this bears directly on how they make decisions and progress through the stages of learning.

Types of Physician Learning

When physicians experience a knowledge or performance gap, the following learning strategies were most commonly chosen: self-directed activities, consultation, or formal learning activities (Snell, 2000). Self-directed physician learning is a process where a physician takes the initiative to diagnose their own learning needs, formulate goals, identify resources and learning strategies, and evaluate learning outcomes (Knowles, 1975). Self-directed strategies may include reading medical journal articles or textbooks, participating in journal clubs, workshops, or discussing an issue with a PSR. Since the physician can choose the learning topic and manage their progress, self-directed learning is compelling because it is physician-centred, problem-based learning that is relevant and immediately useful. However, a certain skill set is necessary for self-directed learning to be successful (Snell, 2000). Physicians must be able to reflect on their practice to uncover learning opportunities, think critically, apply key findings to their practice, and plan, monitor and evaluate their own learning progress (Snell, 2000).

In conclusion, self-directed learning can be an ideal learning method for ongoing, specific, practice-based problems because it reflects the needs and skills of the physician, and has the potential to deliver modern healthcare solutions in a timely manner.

Consultation involves patient or problem-based discussion with colleagues, specialists, consultants or health professionals. Consultation is the second most frequently selected learning method by physicians, however there is a dearth of literature on this topic (McClaren et al., 1998) probably due to its informality. Learning through consultation may be particularly beneficial in terms of behaviour change if coupled with self-directed study, deliberation, or formal learning. Confirmation or support of an idea or behaviour strategy may be the enabling factor that motivates a physician to change or move forward to the practice stage of learning. Regardless, while reading and consultation are the most frequently selected, and formal learning the least frequently selected forms of learning, when a problem requires extensive technical expertise physicians choose continuing medical education (McClaren et al., 1998). Possible reasons for the preference for reading and consultation over continuing medical education (CME) are ease-of-use, accessibility, high locus of control, and relevance. Further, reading may minimize the time for a busy physician to move through the stages of learning. Nonetheless, the effectiveness of physician learning or behaviour change by reading or consultation has not been reported.

Formal learning encompasses participation in more conventional learning opportunities such as medical conferences, symposia, or CME. This approach is often selected when physicians cannot solve a problem through self-directed (McClaren, 1998) or consultative methods. General problems are more likely to be explored or resolved in

formal learning because other resources have already been exhausted. Canadian physicians report spending, on average, 50 hours a year in formal CME (Goulet, et al., 1998) which relates to their interest in exploring general problems in the effort to stay licensed, current, and improve patient outcomes. Even so, there is considerable evidence that the majority of formal CME activities do little to change physician behaviour or health outcomes (Davis et al., 1999; Davis et al., 1995; Haynes, et al., 1984; Davis, et al., 1992). Interestingly, there is no literature that compares the effectiveness of CME to the other types of physician learning.

CME seems to be based on the viewpoint that knowledge gain leads to behaviour change. Davis (1999) explored the influence of CME by intervention type and intensity and found that single interventions and didactic lectures alone were not effective in changing physician behaviour. Yet, adding an interactive component, such as a case study, or sequencing sessions over time resulted in more positive behaviour changes. In summary, successful adult education is based on learner-centred, relevant, active, engaging, and reinforcing learning interventions (Schon, 1990; Brookfield, 1986; Cross, 1981; Knowles, 1980). Yet the key stakeholders of formal learning or CME; physicians, medical associations, medical educators and the pharmaceutical industry, persist with a largely ineffective approach to physician learning and behaviour change (Davis, 1999). Therefore, formal learning challenges the principles of adult education more than any other type of learning. A more promising approach is to combine the often didactic formal learning approach with other types of learning and reinforcing methods such as opinion leader consultation, PSR detailing, educational materials and learn-work-learn sequencing strategies.

In conclusion, the nature of the ever-changing medical profession necessitates ongoing physician learning (Fox et al., 1989; Bennett, et al., 2000). A number of groups including government, hospital societies, and pharmaceutical companies, have committed substantial resources to minimize the obsolescence of physician skills and knowledge. However, it is clear that application of these resources is not perfectly matched with learning needs of physicians.

A limitation of the literature above is a focus on randomized clinical trials that preclude inclusion of qualitative research. Additionally, replication of the self-selected learning methods trial would be valuable.

Pharmaceutical Sales Representative Learning

There is no published literature on pharmaceutical sales representative (PSR) learning to date. Nevertheless, it is important to review the PSR learning process to gain an improved understanding of the influence PSR learning has on the effectiveness of PSR training programs.

The primary role of the PSR is to sell prescription products. Yet, successfully fulfilling this role is difficult because of increased competition and physician resistance to PSR selling efforts. Thus, PSRs are also focussed on being perceived by physicians as a valuable resource by supplying scientific information, CME, and clinical trial packages. Considering that physicians rely on PSRs as a source of medical information (Creyer & Hrsistodoulakis, 1998; Huston, 1993; Angus Reid Group, 1991), it is necessary for PSRs to stay current with new technologies and medical advancements. Hence, PSR learning is an important and relevant topic to consider.

PSR learning strategies are similar to physician learning strategies and can also be categorized into formal and informal activities. Formal learning includes CME and PSR training programs designed specifically to fulfill educational objectives. Informal learning includes activities such as reading, consultation, or self-directed study in the attempt to learn something related to work. The nature of PSR work necessitates that the PSR go beyond formal or procedural learning to solve novel and different work problems. Therefore, the majority of PSR learning is informal and situated in the workplace. Formal learning strategies do play a significant role in PSR learning but are less frequent and more general than informal learning opportunities.

In conclusion, medical and pharmaceutical fields are undergoing shifts such as medical advancements, pressure from governments, competitors, and increasing involvement of patients in healthcare management. The nature of the physician-PSR relationship means that PSRs must modernize their knowledge or risk losing their tenuous reputation as a reliable source of medical information. Pharmaceutical sales training is aimed specifically at enhancing the knowledge, skills, attitudes and behaviours of PSRs so that they can successfully influence physicians. The next chapter details how this research will explore a pharmaceutical sales training program, its effectiveness, and the contextual influences that shape it.

CHAPTER THREE
RESEARCH DESIGN AND METHOLODOLOGY

The aim of this chapter is to outline the research design and methodology used to understand and assess what constitutes effective learning, training, and evaluation in the workplace of a Canadian pharmaceutical company.

Corporate organizations are complex and require a sensitive research approach to comprehend them and retain their real-life characteristics. Qualitative and quantitative research approaches differ in terms of their assumptions about knowledge, understanding, the purpose of research, and importance of context (Guba & Lincoln, 1989). For example, a qualitative research design can capture the multiple realities of participants and their context in great detail whereas a quantitative design is focussed on single, objective realities through pre-determined response categories. Further, the hallmark of good quantitative research is to minimize error and bias, whereas qualitative research is more flexible to the influences of subjectivity. The objective of this study is to gain a deeper understanding of the assumptions, processes, and philosophies driving adult education, training, and evaluation initiatives in a specific pharmaceutical company. Further, to determine how, whether, and why a pharmaceutical sales training program was perceived to be effective. However, understanding the effectiveness of the physician-centred approach, New Representative Training (NRT) program, and its sponsor necessitates the collection of descriptive information about the approach, program, and company. Therefore, a qualitative research design was selected as the most appropriate research design to capture the richness of study participant's experiences in their natural circumstances to explore and understand how this context influences the outcomes of a sales training program.

Qualitative Case Study Method

A qualitative case study method is suggested as the primary method of understanding the research problem. Yin (1994) defines the case study as an empirical enquiry that investigates a contemporary phenomenon within its real-life context. According to Merriam (1998), a case study is comprised of multiple variables that contribute to an intensive analysis and understanding, by focusing on "meaning in context" (p. 3). The case study approach fits well with the qualitative paradigm that is based on the assumptions that the world is made up of multiple, subjective realities laden with context (Guba & Lincoln, 1989). Unfortunately, the qualitative case methodology ensures that the results are localized and difficult to verify, however it appears to be the most appropriate method for exploring the research question because it captures the phenomenon under study in its natural state (Yin, 1994).

Lastly, case studies are often classified according to their end product (Yin, 1994; Merriam, 1998). This case study will be characterized as explanatory or evaluative because the goal is "to test explanations for why certain events occur and how these might apply to other situations" (Yin, 1994, p. 14). Ultimately, the goal of using qualitative methods in this evaluation research is to understand the case in its totality by understanding the perspectives and meanings of participants and their socio-cultural context (Patton, 1987). A framework can then be developed to help stakeholders make more informed decisions about training and evaluation.

The Case Study

This study analyzed an atypical Canadian pharmaceutical company that focuses on physician's needs in the endeavor to meet its objectives. Therefore, the complex

social phenomenon or case study is a physician-centred pharmaceutical company and its New Representative Training program. This company is described as uncharacteristic because the researcher believes most pharmaceutical companies concentrate on their own needs to sell products and increase company share prices. Even though both approaches often lead to the same objective; increased profits, one wonders if a physician-centred company is relatively more successful at meeting these objectives.

The President and CEO led the development of the corporate approach when he started the company in December 1996. An outline of his rationale and what the company philosophy means to study participants is included in Chapter Four.

Clearly, the most serious implication of studying this atypical case is that it may not be unique: the physician-centred approach could be a clever plan to earn the respect and support of physicians, employees and patients. Further, what if the physician-centred approach is supported by senior management but is not implemented by PSRs who have the most direct contact with physicians? In order to minimize these doubts, the President and CEO of the company was interviewed to explore the corporate philosophy in-depth, and its effect on organizational objectives. Additionally, four PSRs, who participated in New Representative Training, and their four managers were also interviewed to gather their perspectives on their company's approach, its influence, and their experiences in New Representative training.

Finally, the selection of this particular case study should help meet the study objectives. If the physician-centred approach is unique, then it should be highlighted by study participants as one of the key impetus of learning, training, and evaluation initiatives at the company. Further, if this approach is truly a corporate philosophy then it

should be communicated in the sales representative training program and mentioned by study participants as an explanation for how, whether, and why training was effective.

In summary, the qualitative case study method was selected to examine a unique phenomenon; a company's physician-centred approach in real-life context. The aim was to gain a rich, in depth, holistic understanding of how, whether, and why this intervention influenced sales training effectiveness and an organization's performance. However, the case study approach requires considerable experience to ensure that biases or misinterpretations do not impede the quality or outcomes of the results (Yin, 1994; Patton, 1987).

Sampling Strategy

Site Selection

The research site is a small Canadian research-based pharmaceutical company comprised of approximately 130 employees. Company headquarters are located in Germany; home of a small European-based pharmaceutical company that employs approximately 7000 people worldwide. Canadian employees were hired to plan and execute the corporate priorities of the local operating company which focus on the sales of three brand name pharmaceutical drugs, and the research, development, and marketing of new chemical entities. Employees are organized under seven departments such as President's Office, Scientific and Clinical Research, Regulatory Affairs and Quality Assurance, Human Resources, Marketing and Business Development, Sales, and Finance and Information Technology. The decision to select this site was based on first-hand information about the site, regular access to employees, established quality relationships, sales training programs, and interest in their physician-centred approach.

Purposeful Sampling

In addition to the site being chosen purposely, nine individuals from the company were selected for interviews because they best represented and informed the phenomenon of interest. This sample is small enough to allow for in-depth research and large enough to be credible (Patton, 1987). Nonetheless, the option to increase the sample size was constrained by accessibility and availability of individuals who could add significant value to the research and its outcomes.

Participants

The following employees were selected for interviews: (1) the President and CEO of the company was approached because he launched the company in 1996 and he steers the implementation of the corporate philosophy, (2) the Manager of Learning and Development because he led the effort to deliver New Representative Training (NRT), (3) four PSRs who attended NRT in October 2000 or the first NRT program that the researcher was granted access, and (4) three Regional Sales Managers who supervise the four PSRs because they likely have an opinion on how the corporate philosophy manifest in NRT and PSR daily work.

Nine interviews were scheduled from May to July 2001, approximately seven to nine months after the NRT program, in an effort to capture training outcomes. The study participants involved in the interviews came from a number of different backgrounds before joining the company. Geographically, three PSRs came from Ontario and one from Alberta. All but one of the managers came from Ontario, with the exception also residing in Alberta. In terms of education, every participant had a university degree; two of nine participants had doctorate degrees. Regarding work experience, five participants

had previous experience in pharmaceutical sales, two of which progressed to pharmaceutical sales management and one advanced further to the Vice President of Marketing in a large pharmaceutical company. Three of four new PSRs came from sectors other than pharmaceuticals including academia, social work, and healthcare administration while the other new PSR was previously a sales manager in a large pharmaceutical company. Finally, the last participant was a consultant working with companies in a number of sectors, including healthcare. Five of the participants were male and four female. Ages ranged from 32 to 50. The average age of PSRs and their sales managers was 33.5 and 37 respectively.

Role of the Researcher in this Qualitative Case Study

The researcher participated in this case study as the interviewer or the primary instrument of data collection. Researcher participation encompassed the following: (1) communicating the researcher role and study objectives, (2) arranging and conducting one in-depth interview per participant which entailed asking good questions, listening intently, and being open to the perspective of each participant, and (3) addressing any questions or concerns that impeded the completion of the interview. Since the researcher was an employee of the organization under study, there were opportunities to build on previously established trust, respect, and mutual understandings about the company. Disadvantages with this insider role may have included participant unwillingness to see the researcher outside of her usual role, potentially limited disclosure, and hesitancy to state negative opinions or beliefs.

Data Collection Strategies

Semi-structured interviews were selected as the qualitative data collection

strategy to allow the researcher to understand the participant's perspective (Patton, 1987).

The semi-structured interview increased the likelihood that intended topics were

addressed, yet it permitted spontaneous re-wording of questions and sequencing to

encourage careful questioning and listening (Kvale, 1996; Patton, 1987). In the study,

ten interviews were scheduled and conducted over a three-month period. The interview

schedule was built around the availability of each participant and each interview occurred

in a location that was comfortable for the participant and situation, such as a local coffee

bar, office, or room at a pre-determined meeting spot. Interviews lasted from thirty to

sixty minutes. The researcher used a pre-written interview guide, as-needed prompts, and

verification of answers as the approach to collect participant's responses. Questions were

purposely sequenced to begin the interview gently with demographic and historical data

such as, how long have you worked with the company? (see Appendix A). Once the

participant consented, a tape recorder captured verbal components of the interview so that

the researcher could concentrate on understanding the world of the participant and their

experiences and perspectives. Further, "direct quotations reveal the respondent's levels

of emotion, the way in which they have organized the world, their thoughts about what is

happening, their experiences, and their basic perceptions" (Patton, 1987, p. 11). To

preserve confidentiality, each interview participant was assigned a code number. The

code number and responses to interview questions were transcribed verbatim into a Word

document, and then password protected to ensure security and quality control of the data.

Finally, each participant was sent a copy of the transcript to ensure it accurately reflected the interview and their intent.

In summary, the aim of qualitative interviewing was to provide a suitable environment and opportunity for research participants to express their individual opinions, perceptions, and experiences thereby resulting in a rich source of data (Patton, 1987).

Data Analysis

Before data collection and analysis commenced, an analytic strategy was outlined as part of a case study framework (Yin, 1994). The researcher chose to analyze the data using content analysis and interpretation techniques (McMillan & Schumacher, 1997; Patton, 1987) because a clear theory informing the analysis was not apparent prior to data collection. Further, the researcher tried to maintain objectivity throughout the analysis to maximize unanticipated outcomes and minimize pre-conceived notions or biases (Patton, 1987). Once interviews were complete and fully transcribed, intensive data analysis began. Data was categorized into similar themes, categories, colour-coded and then saved into different Word files. Even though an analytic theory was not clear, the researcher did have an analytic strategy that guided decisions about what to analyze and why. Simply, the researcher followed the question outline and organized participant responses under the most appropriate sections such as company philosophy, training influence, and training transfer. On occasion, the researcher had to make inferences from the data; this was done with great care and when possible, was based on convergent evidence such as participant observations, physical artifacts, and common sense. Further, occasionally, value judgments were made about which data and findings were of

relevance to addressing the research objectives and stakeholders needs (Patton, 1987). Considering the small sample size and resultant database, these decisions were not frequent but still, it impacted the research outcomes. Thus, findings that were supported by other sources, consistent, and credible were of highest value. Also, care was taken to ensure variations in findings were seriously considered before discarding.

Other documents were accessed to increase the knowledge and understanding of the case study (Patton, 1987). Examples include: company recruitment ads, values, priorities, structure, financial results, and New Representative Training questionnaire results (see Appendix B).

In summary, the aim of data analysis was to rule out alternative interpretations, accurately reflect the data, and draw conclusions (Yin, 1994).

Validity and Reliability

To judge the quality of the case study, four validity and reliability checks were implemented. Construct validity is problematic in case study research because the reader cannot easily determine if the data genuinely reflects the context of the case or the subjective interpretation and judgement of the researcher (Yin, 1994). To minimize threats to construct validity, the Manager of Learning and Development reviewed this research report. Additionally, the data was preserved in case other researchers chose to review or utilize it.

Maintaining internal validity, or consistency between the participant's descriptions and the researcher's interpretations, is vital to a methodology that is based on numerous subjective realities (Yin, 1994). The researcher implemented the following strategies to improve internal validity: taped interviews, verbal verification checks with participants

during the interview to ensure consistent meanings, and a final transcript review by every participant. Further measures included conducting the interviews in a setting that was comfortable for the participant, taking notes before and after the interviews to capture additional context, and seeking assistance from participants if comments were not clear.

External validity relates to the extension of the findings beyond the case study (McMillan & Schumacher, 1997). This research report will contribute to the adult learning, training and evaluation literature and theory, however due to the small size of the group and the atypical case, transferability of the findings is limited (Yin, 1994: Patton, 1987). Nonetheless, steps were taken to enhance the value and use of the case study results such as: providing a description of the case study, company, participants, and researcher-participant relationship, and explicitly outlining the steps and decisions regarding sampling, data analysis and collection (McMillan & Schumacher, 1997).

The traditional definition of reliability, that is, consistency of results over time, does not fit the qualitative research approach because the goal is not to secure one reality but instead, multiple realities at a moment in time (Yin, 1994). However, the researcher ensured that the case study minimized any biases and inaccuracies. These steps are outlined above in the section on internal validity. Other steps included writing a study plan to guide the interviews, data collection, analysis and conclusions, and explicitly describing the sampling strategy, role of the researcher and data collection strategies to facilitate the replication of the case study. In summary, case quality and integrity was enhanced by the implementation of validity and reliability tactics at various stages of the study.

Limitations of this Qualitative Case Study

Objectivity and reliability threats were noted, monitored, and minimized as outlined in the previous section. Still, there were six potential study limitations. First, researcher bias as outlined in the Introduction. Second, reliability was threatened by heavy reliance on a single source of evidence (i.e., interviews), even though some use was made of other sources such as documents and observation. Notably, interview quality was subject to poor articulation, limited recall and bias (Yin, 1994). Third, limited experience of the researcher in conducting and writing case studies may have influenced study outcomes in addition to unintentional bias in interpreting participant responses (Yin, 1994; Patton, 1987). Fourth, and perhaps the most significant limitation of this research was the interview questions. Based on the assumption that good research comes from good questions, the researcher recognizes that different and more open-ended interview questions may have led to different, perhaps better results. Experience, skill and insight are the solutions to avoiding this limitation, so the researcher relied on academic advisor opinion before finalizing interview questions. Fortunately, participants had no issues with answering the questions that were posed and elaborating when necessary. Five, although the scope of this study allows a specific problem to be studied in depth, it also leaves much unexamined (Patton, 1987). Despite this limitation, the researcher chose to limit the focus of this evaluation research in the effort to produce clearer results. Finally, study results may have been more conclusive and valuable if the scope of the study was widened to include physicians. Instead, study results are limited to participant opinions about the influence of the physician-centred approach on its key recipients, physicians.

Despite a number of potential limitations, the qualitative case study method was an appropriate method of gathering data on a pharmaceutical company's approach and how it influences the effectiveness of a pharmaceutical sales training program. The next chapter introduces and examines the data in further detail.

CHAPTER FOUR
RESULTS AND ANALYSIS

Company Discovery

Nine study participants found the company described in recruitment

advertisements (see Appendix A), or by recruiters or colleagues who positioned the

opportunity as, "this sounds like you, why don't you pursue it?" and "met with the

President, it looks amazing." Those participants who joined the company in its first year

contacted the company for an interview because they were "intrigued" and saw a "ground

floor opportunity." Others who joined later "knew of (the company)" through

associations with their existing employers, friends and spouses. In fact, one employer

introduced a study participant to a company representative by stating, "You should meet

this person. I think she should work for you guys. I think you'd like her."

Company Philosophy

The President and CEO of the company described how he developed the company

philosophy, "I wanted to create a company that was more customer-oriented and

therefore more employee-oriented than the average company." Four participants echoed

these comments with company endorsements such as, "very people-focussed, and the

people are really the employees and the customers." Another participant described the

company as "a very people-oriented company that values the opinions of people that

work for them." With respect to physicians, a "customer-active" approach was applied

by the company and the "sales philosophy is very customer-centred" where "the customer

is sort of the most important."

Four other participants thought the company philosophy was to create a "very

open, honest work environment" in which "people are allowed to be individuals within

the company setting," and how "they give you a lot of freedom" and support the "independence of business thinking."

According to two other PSRs, "balance" was the main philosophy of the company, that is "you're empowered with the ability to gain a little bit of control of your own environment and your approach and you can reason out what is a balanced life." Another representative stated, "I think that's something that they strongly advocate...balance in the way you work" but also in "dealing with your customers, there should be balance in that as well" where "you should be able to talk about other things with your customers. You should be able to look at what their lives are like, what their practice is like, and add value in that way too."

<u>Rationale for Company Philosophy</u>

Participants were then asked why the company had a particular approach. The President commented:

> I spent a lot of time at big companies; Roche, Glaxo, Johnson & Johnson, and they're all a bit impersonal, they're very product-focussed, they're fairly short-term in their customer focus and I don't think anyone cared for customer intimacy in a real sense. They talked to it, they tried to, they spoke to it but it didn't really happen. So the difference I tried to make...was to create a company that was more customer-focussed than product-focussed...I guess I just wanted to do it right.

Other participants acknowledged the President's vision. A PSR stated, "I think that approach or philosophy is developed from the top, from the President...and the hard work that was developed, to start from scratch, a pharmaceutical company which had no

foundation or basis in Canada to begin with…you have to differentiate yourself in a competitive market environment." A manager added, "it starts from (the President) and it starts from a few of the original directors who shared a similar philosophy for the type of organization they wanted to create." The manager then described how the philosophy was created, "they did have a retreat where they carved out the values so even though that's a pretty typical thing to do, those five values did really serve early on to start creating the culture and it was stuff that attracted people to the company…they created those values and then they allowed for it to happen." Another manager agreed, "I don't think that what he's put down on paper, mission, vision, is that different from what a lot of companies, you see balance in a million companies yet they're working you until 4 a.m…I think that taking that risk and letting, giving people that freedom, that's the thing I think (the President) has done."

<p style="text-align:center">Influence of Company Philosophy</p>

When asked how the company philosophy influenced their daily work, a new PSR commented:

> having that…approach to your customer, approach to your employees makes me want to look at other things. What else can I do? What else can I add, just as an individual, not as a company, can I add to this person's world?…If you're happy, you want to make your customers happy too and that comes through.

Other PSRs linked the balanced environment to their personal working style, "they let me have my own approach…so their approach is allowing me to bring more of myself to the job," and the philosophy "allows you to be the individual you are and not pressed into a suit…you're empowered as an individual, you feel confident" and finally, "allows me to

concentrate on my work rather than being bogged down in maybe meeting someone else's agenda…it just allows me more freedom to do the job that I would do otherwise."

Those participants with management responsibilities commented, "it makes me enjoy it a lot" and "I have a lot of flexibility on a daily basis to think about new ideas and to bring those up" and "I feel empowered." One sales manager felt, "as a manager, I feel compelled to uphold the values…it's just a different attitude, you know we're not counting how many calls you made this week…I'm more focused on the people and what they need to do their job and less focused on what it is they're doing out there." The same manager also felt the influence of the company approach on recruiting new representatives, "I think in hiring sure you're going to pick a different person…I think that we do things differently and somebody like that (ten years in the industry) won't be able to figure it out you know. They'll think there's something wrong with our approach."

Five participants agreed that the company philosophy influenced their customers while others were not sure because they were new, or they weren't "sure that it's easy enough for them (physicians) to differentiate." One representative related a story that a physician told her before she joined the company, "the reps don't like as much make appointments and come sit down and do these formal details with me, they, it's more that they kind of drop by and they form relationships and they're around." The company President also said, "I get calls and letters and comments from different physicians who are our primary customers. They one, notice us, secondly they see us as being different, they like doing business with us, we've always been fair to them, and what we implement, we implement quite well." One PSR thought that physicians notice "added

value kind of things...and that we really try to do things that are different." Another PSR observed,

> The company provides the environment and the company espouses those values, and if the company wouldn't maybe offer that environment of value-added service and integrity, that work-life balance...then I think you would have a different attitude in the way you approach your customers and the way you approach your work and that would ultimately influence on the customer relationship.

Finally, with respect to relationships, one new PSR stated, "on the relationships that I've developed that are very quick and seem to be long-lasting at this stage, and certainly genuine, I think that approach is very clear, I'm not like every other representative."

<u>Atypical Case? Philosophical Approach of the Competition</u>

All participants agreed that other pharmaceutical companies had a different philosophy than their company. Two managers mentioned that their company was "less structured" than other companies, and the competition was "set, and if it changed, it just changed...there was no way to give feedback...because it didn't really matter." A sales manager thought the company was "different because of the independence (of business thinking) concept." Other participants felt that, "the average employee is treated better" and there is "a general respect for people...it's not just the bottom-line." Furthermore, the environment was considered to be "very flexible...it's one that treats people like adults, treats people like they have brains, given the right conditions, people will more likely surprise you as opposed to disappoint you." Finally, regarding the sales process, "part of selling at (the company) is also providing a relationship...as opposed to a quick

in and out sale…there's a number of ways to sell effectively which don't necessarily mean the big sell, the traditional selling job. That's what I experienced with some of the other companies."

New Representative Training Program

This study focussed on a single adult education program titled, New Representative Training (NRT). The program was conducted in October 2000 and was attended by five PSRs from Ontario, Alberta and New Brunswick. NRT was one of four sales training programs that the Learning and Development (L&D) team offered the sales team to ensure they met the needs and expectations of external customers and performed at a predetermined level of competency. Other L&D sales training programs catered to more experienced Mid, and Vet(eran) Representatives and the specialist and hospital-focussed Hospital Representative.

New Representative Training was scheduled when enough new PSRs joined the company to fill new positions or replace PSRs who left the company. Participants in NRT did not have to be new to pharmaceutical sales but instead new to the company. This system was unique because most pharmaceutical companies match sales training to the competencies of the PSR. Nonetheless, the rationale for including new PSRs, experienced or not, in NRT was that the company approached the pharmaceutical business differently and NRT was one of the main venues to communicate this atypical perspective.

New Representative Training was short in duration compared to most new PSR training programs. Each PSR attending NRT would travel to a hotel near the head office, located in Southern Ontario, and attend five days of predetermined group training courses

compared to the industry standard of ten to fifteen days. The stated objective of NRT was to familiarize the new PSR with the values of the company, instill disease state and product knowledge, increase selling skills competencies and ensure a high degree of confidence so PSRs could effectively work in the field post-training.

Faculty for NRT were chosen based on ability to deliver the course content, meet program objectives, and represent the various stakeholders in the world of a PSR. For example, the training program was initiated with a presentation from the L&D Manager on the corporate values, culture and expectations. Closer to the end of the week, the President sat with the group over lunch and answered questions about the company. Additionally, local physicians were chosen to review anatomy and the disease state of focus, pharmacokinetic parameters, and drug interactions. Further, employee champions were selected to present and discuss certain topics such as: marketing strategy, computer skills, information systems, pharmacovigilence and medical information procedures. In two cases, veteran PSRs were asked to come into head office to help deliver the training.

In the session on product marketing, the facilitator showed two visuals to showcase the difference between the corporate (see Figure 1) and competitors approach to pharmaceutical sales (see Figure 2).
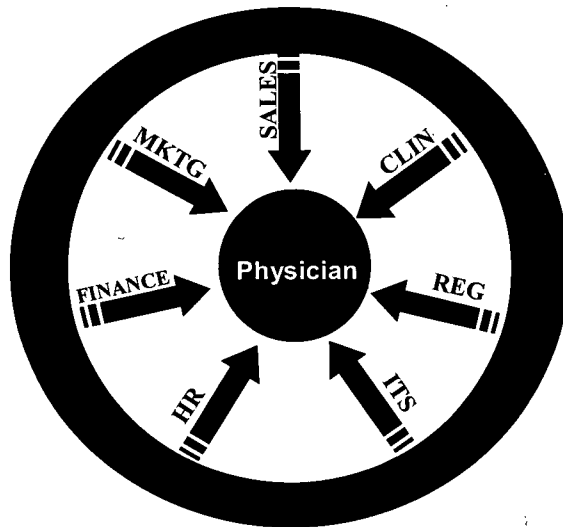
Figure 1. Physician-centred approach of the company
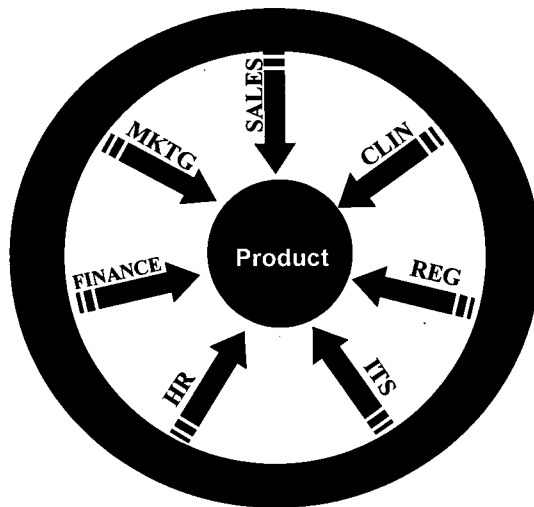
Figure 2. Product-centred approach of the competition

Additionally, a session on selling skills delivered by an external training company named

HealthSync, was also tailored to the company's physician-centred philosophy. A

physician from HealthSync outlined four different physician types and explained how to

modify the sales call to match the physician personality type. HealthSync physicians also

analyzed the company product from the perspective of a customer. PSRs were then

asked to role play the product's features and benefits directly to a team of physicians who rated their performance based on the PSRs ability to meet their needs and successfully convince them to prescribe the product.

Program attendance was mandatory and full participation was recommended. Breaks were scheduled during and after each learning module and PSRs were encouraged to play music to boost their energy. Throughout the sessions, PSRs were also permitted to stand up and stretch, eat fun food, and play with small items on the table if this was necessary to keep their interest and attention.

A class assignment was given on the first day and each PSR in NRT participated in a "Lunch and Learn" session to apply the learning from the previous sessions. The L&D team invited the faculty and company employees to help create an audience for the group presentation on the product.

Objectives of NRT

Study participants in a management role were asked what the objectives of NRT program were and the most frequent responses varied from, "introducing representatives to who we are" and the "way that we do business versus traditionally" to "product knowledge," "presentation or selling skills, communication skills," "territory management...understanding who their customers are, what they're capable of, and what the potential is of a customer of a territory," and "the marketing strategy of the product...to know where it fits in....also the competition..the reality out there." One participant summarized, "the goal of sales training should be to provide the learning resources to the people in the sales force to enable them to effectively do their jobs...and provide a unifying context for that...what we are all about, the philosophy."

Setting of NRT

Responses to the question of where the best place to conduct NRT varied and included, "a week with their books at home...spend two afternoons out in the field, not to, to learn only by listening...but just to watch and start to kind of put the information together...come into a classroom environment...in the office...a chance to meet with some of the different people in marketing and clinical." Another manager agreed that it was "important for them to identify a home for their company." The idea of training in a hotel did not appeal to another manager, "I think putting reps...in a hotel and having them walk down to the same room every day, they're going to check out 50% of the day, they'll be daydreaming so I think you need to keep the environment active." This manager also thought "field training is excellent...but then there's that territory time and you're taking them (field trainers) off territory and I have this inherent fear of doing that too much." Two new PSRs thought it would be helpful to "work with other reps" or "to ride along with somebody else who's not in your territory" to answer the questions, "What are you doing?" and "What's it like to spend some time in your territory?"

Training Approaches of the Competition

The same participants were asked if their company's approach to training was different than the competition and there was unanimous agreement that it was unique. One manager mentioned, "at any other company I've been with they have a trainer who trains whatever you want to learn, this person is your expert. The reality is that they're not an expert." Another participant agreed, "the trouble was, their knowledge wasn't that great because they were never experts at what they did." One manager thought the company fostered "a reciprocal responsibility for opinion, interpretation and contribution

versus just being told for a week or two, what your business will be and how you will proceed." Perhaps the most accurate feedback came from the L&D manager who worked directly with competitors training departments on co-promoted products. He lamented that "their approach is so heavy-handed, so anti-adult learning principles...their reps... get trained in almost scripts...completely oblivious to who the customer is, how you might want to fine-tune your message to that customer." He then related a story that described the "whole different philosophy around training,"

> When we did our (product) launch, minutes before the room opened, we
>
> had binders, product-training binders set up in front of the room, and the
>
> intent was people would come, get a binder and go into the room. This
>
> flipped out the folks at Merck because they're saying,
>
> What are the binders doing there?
>
> People are going to pick one up and take one.
>
> Well, we don't do it that way.
>
> Well, what do you do?
>
> Well, we actually pre-assign people seats and put their names on their binders and
>
> they know where they are sitting before they come in.

Other managers found both positives and negatives in the company's approach to training compared to the competition. One manager thought that training was "less intensive. I think traditionally training is 2-3 weeks, very intensive...I don't think we spend as much time on selling skills, the traditional...role play...how to bridge from one page to the next and closing the calls...we don't do that, that's a very structured sales call. I think we leave it...fairly open." This manager saw some value in this less structured approach, "in

a way, I guess by using HealthSync, you are doing it very customer-based because you're actually asking the customer how would you like people to sell to you? And they're saying, this is how other companies are doing it, you know, page by page, bridging between the pages and summarizing the call and then gaining agreement, and you know, I don't think we're doing it that way." Finally, another manager voiced concern about the lack of a strategic plan and focus, "I think we need a better idea of this is where we want to take...I don't think we've looked at it...methodically...the big picture of what we're trying to accomplish...I'm sure they haven't lost the big picture but I know some weeks get away on them."

PSR Experiences in New Representative Training

Field Experiences

PSRs who attended NRT were asked if they worked in their territory before training and all but one PSR had this experience. One PSR spent approximately five months on territory and found it helped to "learn what's important by talking with them (physicians) and they tell you what's important." Another PSR had six months in the field and thought, "I needed it to get recognized before I actually was getting the chance to do the sales speil anyways...and it gave me a chance too when somebody asked me something I would say, you know, I just don't know, can I get back to you? It gave me a reason to go back the very next day." Another PSR with approximately ten years of field experience found that "prior experience in the industry helped...you already have experience as to what physicians are looking for, what physicians needs are, what physicians may consider value-added, what it takes to build a relationship with a physician, what type of product information they are looking for, what the selling skills

are." The PSR who did not have any field experience noted, "a lot of them (other PSRs) had already had some experiences in the field. That was something that I really looked to for advice or for observation to see how they conducted themselves...I felt that was perhaps a disadvantage...I think it would have helped." This uninitiated PSR explained why it would have helped,

> In a certain environment, you can be made to feel that selling mud is a good thing. Until you get the message back that mud is wet, slimy and dirty and I don't want it, how do you respond back because it's true. So I think you need that practical interaction with physicians.

Learning Styles

The same group was asked how they best learn and their responses were diverse. One PSR learned "by interacting with people and listening to how other people do the work or the topic." An example this PSR offered was listening to a physician talk about the topic of drug interactions because "when we talk to doctors about drug interactions a lot of them nod their head and go ya, ya, ya, I don't see drug interactions. I think as a new rep, drug interactions, yes it's catchy and it is important but real life what does it mean? And I think by seeing (Dr.) Peter Lin, he really puts it into perspective." Another PSR learned "from mistakes!" The example offered was a story;

> My first CME, I had a bus of thirty people that I took to an event and it's the only bus in the parking lot so you'd think that thirty grownups could find the bus but not after a lot of wine...If you can just step back and, well that didn't go very well. Why?...So I find that's how I personally learn best.

The "hands-on approach" was suggested by another PSR:

> where you're allowed to play with a particular system or a particular method of doing anything. If you want to learn how to be a good salesperson then you have to actually do it but you also have to be allowed to fail. The best example of one of my first days at work was out in the field with my regional manager. No advisement at all. I was left to sink or swim, however I was also entrusted with the fact that, there was no way that I'm (the manager) going to let you look like an idiot or there's no way I'm going to let you fail miserably. I'm going to help you out...I'm not judging you, I just want you to be yourself and I want to see what you can do, naturally. And I think that was probably one of the most profound learning experiences.

Finally, another PSR recalled, "the best learning experience that I had was right when I first became a rep and I think it was by having people fire questions at me that I couldn't answer the way I think I should have been able to. And that forced me to look up information, find those answers so I would never be in that position again." This PSR admitted, "there is so much information when you're first starting, you don't really know the most relevant" so initially, "questions from physicians helped me learn best."

NRT Learning Experiences

PSRs were then asked to compare their learning experiences in NRT with how they best learn. The PSR who liked to learn by interacting and listening found some aspects of NRT "very valuable and one was definitely Peter Lin and hearing his perspective and the other was...HealthSync was good because we were talking with doctors." The same PSR didn't appreciate the disease state module because "for me

personally reading the manual was just as good to learn about all the disease state stuff rather than sit there for four hours talking about ulcers." This PSR expanded, "some of that stuff in training, that we learned in training, I already knew because I'd already been on my territory for 4.5 months so it was fine, it was a good review but I'd already learned some of it...hands-on...you get out there and you talk to doctors and you really learn what's important by talking with them."

The PSR who liked to learn from mistakes mentioned:

> HealthSync was really good because when you paired up and did it with a partner and did it yourself you'd not hear your own mistakes but when you'd hear the other person detailing, instantly you can pick up mistakes on everything you did wrong and that's what was really valuable to me because I was making the same mistakes but my filter wouldn't let them in.

This PSR was also concerned that "well with our product because we don't have a lot of papers and things, the training was kind of key on, how do I sell without any backup?...Definitely with training, it helped." However, occasionally NRT was "maybe not ideal" for this PSR because "I'm an interactive person...so the workshop format would probably be my preferred."

New Representative Training was "a little too short" for the PSR who liked to learn "hands-on." Specifically, "where it was disappointing was...the computer assisted training. It was too short at the time, a very quick overview...and it translated into not being as effective a representative." This PSR was pleased with "the science itself was very, very good and the selling skills were excellent as well." The PSR added:

We were allowed to get up and walk around and pace, and do a bit of venting during the process of our learning as opposed to sitting in a school seat and trying to absorb for an eight hour session. It was a different learning environment...we had Nerf footballs, we were allowed to throw them in the back of the room between each other...I think for me, that translates into, I'm still listening, I'm still paying attention and I'm still absorbing. If I learn that way, that's the most effective way for me to learn. For other people, they may want to sit at the front and just absorb and I think you were free to do both.

The PSR who liked to be challenged with questions added, "what I liked about it was the fact that they brought in outside experts, they brought in physicians to go through the scientific aspect and they also brought in Dr. Lin and for me that was very informative and helpful...I also really liked the interaction, (the marketing) session was very interactive, roundtable discussion rather than someone presenting information."

Effectiveness of New Representative Training

To understand how NRT influenced the performance of PSRs, questions were asked of PSRs and their managers seven to nine months post-training.

PSR Assessment of NRT Influence

PSRs all responded positively to the question, did NRT influence your daily work? When asked how NRT influenced them, some PSRs were overflowing with stories while others were less detailed. For example, one clear-sighted PSR "started to think harder about how I said things because one word could ruin my whole statement I was trying to make...so I found that I started to develop a few phrases after New Rep Training and HealthSync." The same PSR explained,

How pre-call planning became much more involved after training basically.

One of the analogies that the HealthSync doctors use, that I like to use when I'm sitting right there in front of the doctor is, we're walking down the hallway, I get to choose what door we go through but it's up to me and that was one of the things that I learned. Until then, I was talking about whatever the doctor wanted to talk about because I thought that was my job, and after training, I started to realize, I have to be in control of the call.

In contrast, another PSR simplified the influence of NRT with the statement, "You get basic information, the basic training and as you get out in the field, then you start to learn about what makes sense." The PSR made suggestions about what was required from NRT, "I would like to see clinically, what does our efficacy, what does that really mean? What clinically does our drug interactions mean? That's why (Dr.) Peter Lin was so valuable."

In terms of influence, another PSR confirmed, "I was more effective because of new rep training" therefore "you feel confident as to what you do, and that translates back to you being an individual with a lot of success." The PSR explained, I best learn by reading and investigating myself...I don't think you can entrust people to be at home and learn in an environment by themselves and then have the confidence to go out (in the field). You have to bring people together...It's a fairly daunting task but together we're going to learn to do it effectively."

Another PSR acknowledged, "I didn't change my style in the office or anything like that. I think just more the confidence with the actual disease state and drug interactions being one of our pillars." The PSR then added, "It probably also gave me a

better appreciation for (the company) and the people who work for (the company). It made me feel better about my decision and it helped cement that I had made the right decision.

PSR Assessment of NRT Transfer

Responses varied to the question, How easy or difficult was it to transfer what you learned in NRT to your work? Overall, PSRs found that knowledge did transfer but "it's not as easy as it seems when you're in training…so, as nice, as nicely as it goes…it's still make-believe….you can still apply what you've learned, you just may have to try a few different methods and try not to be obvious about it, that's the hard part."

Another PSR was more critical, "you take those things that you learn and you then try them in the field…if they don't work you're not going to use them again. That's the long and the short of it…I think that's what you have to expect is that the person is going to take what they've learned out of training and apply it to themselves…you've got to take the key points of training that make sense to you as a person."

One PSR found the experience quite easy to start,

> I found the first few weeks to few months…very relevant…when you come back
> from an intensive one week work session, you're invigorated. You want to get
> out there and actually apply your trade now. You're kind of psyched up, you're
> pumped…So, I didn't find it difficult to translate my experience and New Rep
> Training into the work environment.

This PSR then advised, "as the months went on, it would have been useful to have a bit more of a refresher follow up…you have good success initially…but that wanes in the

endurance of day after day...I found it difficult five months later, memory isn't that good anymore."

The most experienced PSR found transfer "very easy because there were some key things that I was looking for. I knew the questions that I needed answers to going in and so I got the answers while I was there and at least felt more comfortable about the areas that I had concerns in, and so then I think I'm able to apply it."

Sales Management Assessment of NRT Influence

Sales managers were asked for specific examples of how PSR behaviours, skills and attitudes changed before and after NRT to understand how training may have influenced their performance in the field. In terms of behaviour and skill change, one manager thought "the structure of (the PSR) call became more focussed...(the PSR) was much more focussed in what questions (the PSR) asked...it was much more organized." The manager admitted, "initially you're asking a lot more questions, but you don't really know where you're going, and what I find now is that the questions that (the PSR) would ask would be a little more focussed, be able to actually, here's what I want to accomplish in a call."

With respect to another PSR, the manager noticed, "now what I find with (the PSR) is (the PSR) will bring up you know, a point...because (the PSR) can generate a discussion, but to actually then focus that back to a point about the product...so again, more of a focus in that." The manager added, "after the training session, actually using a lot of the leave behinds and things (the PSR) would pull out and introduce and be more comfortable with using."

Another manager was not sure that NRT changed much for one particular PSR, "selling skills are what (the PSR) really needed and (the PSR) didn't really get...the product knowledge was a piece of cake for (the PSR) based on (the PSR's) education so that was pretty easy...(the PSR's) computer skills are great...so (the PSR's) computer skills were pretty good coming out." Although one difference the manager did notice was, "I'd just say attitude, like, people come out with an attitude which is good."

The manager of the experienced PSR said, "I don't think I noticed as much of a difference...because after going through the materials and reading the marketing pieces, and going through the plan of action, (the PSR) was very quickly talking about, you know, hitting the key points even prior to training. And so, after the training, I think, it was just solidifying some of the papers and some of the background."

Sales Management Assessment of NRT Transfer

When asked about transfer of learning to the workplace, one manager thought "it happened fairly quickly...because maybe we didn't focus on too many things, the goal was really to get out and start doing it...get in front of people and start building the relationships, find out from them what they know about the product, what they know about the disease area." The manager also commented that for another PSR who had also worked in the field pre-training, "by the time they came back it just solidified their understanding and maybe how they would talk about things."

The manager who initially wasn't convinced that NRT was effective later mentioned, "(the PSR) took a couple of good things away from that...I think (the PSR's) got off to a great start." The manager then commented:

I think people are quick to take time off territory and not worry about it, which like I said, is different. I remember when I was a rep, I'd be terrified for my....you know...so, I think people get that feeling from the training department right away, they get that feeling because there are reps in that are off territory for a couple of days or they're auditing the course for a week and it doesn't seem to be a big deal. We don't make, I don't think training makes a big deal about being on territory...It's something I've struggled with because to me it's a big deal, but I understand the philosophy and I think that it's working. I've decided to go with it instead of against it."

New Representative Training Program Recommendations

The question, if you were responsible for designing or delivering NRT, what would you change if anything? was posed to study participants to give them an opportunity to address NRT effectiveness in another manner.

Sales manager responses ranged from "I don't know if I'm familiar enough with exactly what goes on in New Rep Training over the period of a week" to numerous suggestions which made this question the most lengthy in terms of responses. Some sales management recommendations were,

Set up some dates for the year and...stick with those dates and decide if there are two people, we will do it. If there is less than two people we won't do it...That's the first thing because what we do is change our dates to accommodate everybody and I think we end up accomodating nobody. . . . I think we're trying to jam too much into one week...I think you need to be a little more specific as to what we want to achieve in a week...I think we just have to stick to a few things and get

good at those...We're trying to change it sometimes too much without going back

and saying OK...let's look at what we want to keep and what we need to keep,

and then let's make it better instead of always trying to change...let's revisit it

and look what our goal is and make sure we're meeting that goal.

Another manager offered, "I'd probably change a lot. I mean, I probably still think we're

building at (the company)." This manager then suggested specific changes:

One thing that we need to be cautioned against is that we, that we provide the

same, that we get the same outcomes from all of our training...it's been done in

so many different ways. I think to know what everybody's had, and where people

are is almost impossible. That's probably a concern that I have." In terms of

sales training, the manager commented, "I haven't been crazy about HealthSync

as a sole sales training organization because I think they are very, their

methodology and theory is very customer-centred but customer-centred on what

they think of themselves as doctors...I don't think they understand the multitude

of personality types and selling situations that reps get themselves in and so I

don't necessarily think that they prepare us for as much as we could be prepared

for coming out of there. I think we need to adopt a bit more of a formal sales

training, and maybe HealthSync is more of a practice...I still think people need

the opportunity to practice and maybe that's the best use for someone like

HealthSync.

The final suggestion was, "reps really have to have a stronger understanding of how to

use the data, they have to better understand their territory and work their territory. So

stronger computer skills."

PSRs focussed more on the experience of being a new PSR, "if you're a brand spanking new, fresh out of the box, they don't know what it's like, but you ride along with your manager, you ride along with other reps, that's really valuable. I don't know if it's feasible…but we try to simulate it with HealthSync. Role playing has its place but I don't think it should be the only thing you would do…the more you can hone in on what it's really like out there, the better it would be." Another PSR suggested:

How to look at a clinical paper…if you were not from the industry or didn't have a strong science background you could easily believe everything that you're saying, and you have to believe it to a certain extent but at the same time, you have to be able to look at your information and know, I'm a salesman so I'm saying it this way because this is the way I can best present my product.

The other recommendation from this PSR was to:

have more about the disease state…have someone come in and talk…about all the different reasons they happen. And you study on your own but it's never the same as having someone who comes to talk about it…in laymen's terms that I could take away and remember.

A suggestion from another PSR was to:

Develop a practical issues module because the practicality of the job…is more daunting than the science background or even the selling skills…some of the practical issues they face on a day-to-day basis cause more stress that translates into them not being as effective…proper use of the cell phone, proper use of voicemail, proper use of call entry…it could be just a day out, a day in the life of a representative…the tricks of the trade…how much stuff do you really need to

haul into the office?...these are things that bogged me down and slowed down my progress...and I think the training is lacking...we're operating a motor vehicle and a cell phone or perhaps even just your daytimer on the seat can translate into a disaster. It's not a safety issue, it's the fact that if you walk in and you don't have a pen ready then you're not going to get a signature for a product you're dropping off or sampling or trialing.

Other requests were; "how to conduct a proper...continuing health education...finding out who the key opinion leaders are." Also, "a philosophy of the background of territory management."

Another PSR commented, "I think it was deficient for those who were new. A lot of people didn't know what a CPS was, a product monograph, their competitor's product monograph. In my opinion you have to know that cold when you are starting and to not even know what it is and to be partly through your training and still not know what it is is something that needs to be addressed." The PSR continued:

The other area that I thought was a bit deficient was in paper reviews and scientific articles and which journals are credible and which ones aren't and how should you look at a scientific paper and here are our top three, here are our competitors top three, and what are the key points and what do you need to know?

Finally, the PSR advised, "the physicians gave a nice perspective, but it was very limited in terms of actual selling skills and here's how to make a sale...I think having an approach and then doing what you feel comfortable within that wider framework is a good thing to have as a basis."

The L&D Manager thought a "focus on assessment" was needed. Specifically,

> An assessment of where they (PSRs) are around their science, therapeutic
> knowledge, selling skills, computer skills...so you get a baseline of where they're
> at. And that gets communicated to the manager who puts a plan in place to guide
> the home-study learning...they come in for the event, then another assessment is
> done...sort of self-assess themselves around the learning objectives of where they
> thought they were before and after the event...so we can start measuring more the
> degree of change that occurs and how much learning actually occurs as opposed
> to the smiley sheets that we have been doing...then we'll have the opportunity to
> have managers assess on those things and work with the field sales trainer who is
> appointed to...where are the strengths? Where are the areas of development?
> And how do we bone up on those areas of development?...to help them be more
> effective.

Results Summary

The atypical physician-centred approach of the company was confirmed, as well
as its' influence. NRT was perceived to be effective by study participants because it
helped enhance PSR work performance (e.x., more focussed and organized physician
details) due to improved PSR confidence and indirectly, the company philosophy (e.g., a
different attitude, appreciation for the company and its employees).

CHAPTER FIVE

DISCUSSION

The primary purpose of this chapter is to highlight the research findings and discuss if and how they support the study objectives. Then, practical conclusions and a framework will be presented.

This chapter is organized into three sections. Part one compares and contrasts basic assumptions, processes and philosophies with the research data in the effort to appreciate their relationship. This section is organized into themes such as productivity, performance management, workplace learning, training, and evaluation. Part two explores the influence of the corporate philosophy, and part three examines the effectiveness of NRT.

Part One

Productivity

Modernization and globalization are harbingers of change that organizations must heed to stay competitive. Communication of these requests varies according to organizational philosophy. For example, a study participant recalled a story about competitor's approach to communication,

> So what they'll (PSRs) hear is, 'you know my manager told me I had to do this' and they'll say to me, 'well you just didn't approach it that way, maybe we're doing the same thing but just the way it came across was I had the choice or I bought into it or I want to do it or we're doing it for the right reasons and not just because we have to.'

The need for enhanced productivity and performance is equally acute for the competition as it is for the organization under study, however according to the President, "the average employee is treated better (at the company)…it's not just the bottom line." A fair question is, which approach works better in terms of improving performance and productivity? The President continued:

> the soft touch, right, is better than the hard touch, many times. I believe that, and so you don't have to push, you don't have to demand, you don't have to expect and order. You just have to have a dream of what you want to accomplish, align people with that dream and without pushing them, they're going to go to that dream…that's my fundamental belief. But, I also think you'll be more successful financially at the end of that too.

Performance Management

Performance management theorists and practitioners advocate the alignment of organization and employee goals in the amalgamated effort to meet corporate performance objectives and improve organizational effectiveness (Hansen, 2000). Barriers to achieving enhanced performance are: 1) contextual backdrop, such as power relations, 2) assessment, which impels quantification of performance objectives so they can be measured and tracked over time, and 3) tension between short-term and long-term objectives (Hansen, 2000). With respect to assessment, recall that less than 10% of companies evaluate training at the results level or Level Four (ASTD, 2000). In fact, the L&D manager participating in the research agreed that a "focus on assessment" in NRT was necessary to "start measuring more the degree of change that occurs and how much learning actually occurs as opposed to the smiley sheets."

Performance and training objectives should be related, but if training is reactive to short-term needs and performance management occurs on a longer-term strategic level then planning, development, and implementation will occur at distinct levels of the organization. If organizational communication is strong then this barrier may be overcome however, performance management initiatives are designed to "improve internal communication of both the organization's vision and objectives, increase employee involvement and motivation, and ameliorate individual performance" rather than instill conflicting purposes (Hansen, 2000, p. 65). For example, the long-term performance objective of the case under study is being physician-centred while acknowledging and respecting "the premise that yes we're in business to be successful, so we're very ambitious and performance driven, but at the same time we respect that there is a human element." If the objective of training for the organization was to "get trained in almost scripts...completely oblivious to who the customer is" then there would be a disconnection between the two sets of objectives. So, while the performance objectives are achievable, training could create barriers by suggesting a product-focussed approach that ultimately displeases customers. Therefore, training should be an integral part of performance and likewise (Hansen, 2000).

Is there a point in the race to meet objectives where performing detracts from learning? Does it make sense to stop performing to fully embrace learning? Literature on learning organizations supports the notion that one of the core purposes of learning organizations is expansion of knowledge thereby improving productivity. Learning in the workplace demands that learning and productivity occur in parallel rather than separately. In other words, "learning is the new form of labor" (Zuboff, 1988).

Workplace Learning

Learning in the workplace is challenging enough that it takes on the features of work (Barnett, 1999). At present, there is no universal model for learning at work because of its complex and multifaceted nature (Boud & Garrick, 1999). Therefore, understanding workplace learning is accompanied by an appreciation of the internal and external influences. An example of an internal influence is integrating corporate philosophy into NRT. Acculturation of employees could have political and ethical ramifications on learning, as well as program planning and evaluation. In this study, the company controls and distributes the resources; the deployment of these resources to get others to comply with what the company wants is a politically laden activity. Therefore, the use of power, organizational culture, and interests to secure particular outcomes is transforming "compliance into cooperation, consent into commitment, discipline into self-discipline, the goals of the organization into the goals of the employee" (Hollway, 1991, p. 94). Additional issues are potentially quashing the very environment that fosters learning and creativity, and providing fertile ground for value conflicts and ethical dilemmas such as planning a program on "a need not acknowledged by the learner" (Sork, 1988, p. 39).

An example of an external influence on workplace learning also applies to pharmaceutical sales, where there are a "multitude of personality types and selling situations that reps get themselves in." This context influences their approach to learning and problem solving at work. Dissimilar customers and scenarios suggest that problems cannot be fully anticipated, answers cannot be scripted, and solutions cannot be impractical. Additionally, even though formal learning is the main focus of training

efforts in the workplace, 83% of workplace learning is informal or incidental (Marsick &

Watkins, 1990). Informal learning occurs when a person purposely takes steps to learn

something such as "how much stuff do you really need to haul into the office?" or

"you're better off to sample more frequently rather than leaving a whole pile." Incidental

learning naturally happens during the course of work such as making impressions like,

"they show a lot of respect for people's opinions" or "it's just a different attitude." So,

PSRs face novel, ambiguous, unpredictable situations that formal learning or training

does not adequately address. Nonetheless, the company could ameliorate this issue by

promoting an integrated training perspective that cultivates formal, informal, and

incidental learning. Moreover, if PSRs were able to compare their learning experiences

with different learning approaches, such as adaptive, generative, and action learning, then

perhaps this would better equip the PSR to "understand and shape his or her behavior to

better anticipate and control the real world" (Mezirow, 1996, p.159). For example,

understanding the differences between adaptive and generative or grounded learning

could help a PSR enhance customer relationships by demonstrating that learning does not

have to be reactive but can be more creative and inductive. In other words, PSRs would

learn through a case study method to "seek to understand and meet the 'latent need' of

the customer—what customers might truly value but have never experienced or would

never think to ask for (Senge, 1996, p. 289). Action learning, on the other hand, is an

experience-based approach that could accommodate the diverse PSR learning styles such

as "hands-on" or "interacting with others and listening" or learning "from mistakes." A

real, meaningful problem could be selected such as: you have called on Doctor X, a high

prescriber, seven times but he is still not writing your product for more than 10% of his

patients. What can you do to change this scenario? PSRs would learn how to approach this dilemma through the process of group discussion, action and reflection. PSRs could work individually on a real-world example from their territory and then re-group for discussion, or they could work as a team throughout the entire learning process (Argyris & Schon, 1978).

Workplace Training

Expectations of training are diverse, and dependent on the needs of stakeholder groups. There is often overlap between groups but that does not translate into analogous interests. As argued before, government utilizes training as a tool to shape society. Corporations also have a large stake because they sponsor and support the majority of workplace training initiatives. The quid pro quo of their generosity is that training is employed as an instrument to improve productivity, competitive position, and solve business problems. Learners also have expectations of training that encompass more than a capability update. Specifically, training may have symbolic meaning to learners who equate training as a reward, recognition or a sign of career advancement, whereas other learners may see training as a threat or indication that they are under performing (Rainbird, 2000). Regardless, most stakeholders would agree that employees need access to training to effectively do their work. While accessibility to training is not an issue for participants in this case study, other employee groups with lower education and pay often do not have this luxury (Rainbird, 2000; Rees, 2000; Boud & Garrick, 1999). Further, unions have power to submerge the needs and interests of these employee groups, in favour of their own.

Training is typically housed in the Human Resources department or occasionally within a business unit, such as sales. The majority of corporate expenditures typically occur in the area of human resources, in terms of salaries and benefits, so this department is often seen as a cost rather than profit center. Training is also tainted with the same viewpoint even though training could be perceived as an integral way to boost corporate performance and profits (Brown, 1998). If the Human Resources department is not bestowed a central role then strategic options of training are limited.

The organizational structure of the company under study includes a "Leadership. Committee" that the President pilots, along with six members who are Directors of the company, one of whom represents Human Resources. The company focuses its strategic efforts on five priorities that are distributed to and implemented by all employees. The third priority is: "Develop a Human Resources strategy focussing on acquiring, retaining and developing our human capital." Priority sub-points include: leadership training, new employee orientation and recruitment, compensation structure to ensure retention, and manage performance" (see Appendix B). According to the aforementioned items, the Human Resources department definitely has a chair at the strategic table. The Learning and Development function reports to the Director of Human Resources and is also poised to play a strategic role within the company because this group executes leadership training and new employee orientation. Another predictor to determine if training is strategically focussed is how its operations, processes, and structures are managed (Carey, 2000; Brown, 1998). Are training priorities tightly integrated with the company priorities? In this case study, yes. Is training responsive to the learning needs of the company? Again, yes. However, this responsiveness can be detrimental to the

organization if learner's needs are aligned to business needs. If, for example the training department is reactive to the needs of employees and their managers, and the department is not adequately staffed to address both strategic and learner priorities, the result may cost the company in terms of lost opportunities and possibly unrealized priorities. Often, longer-term strategic priorities are compromised because their return-on-investment is not immediate and employees and their managers are not always clear how achievement of priorities is of benefit or relevant to them. Moreover,

> a large number of studies suggest that the strategic integration of training has generally not been achieved...due to a range of factors. The existing training personnel may not have sufficient status in the company to develop their function; production managers many not be committed to corporate objectives and therefore fail to promote training strategies; or there may be a general unwillingness to increase corporate funding for training purposes which inhibits the development of the function beyond established parameters" (Carey, 2000, p. 21).

Therefore, for training to reach its potential in terms of facilitating the achievement of corporate objectives, it is crucial that the: 1) business objectives of the company are clearly outlined and communicated, 2) training objectives are aligned with business objectives, 3) learners needs are clearly tied to business and training objectives and finally, 4) management supports this process by removing barriers to effective learning and transfer of knowledge to the workplace. For example, imagine a scenario where PSRs have completed all of the "great" sales training courses but are still falling short of sales targets. The cause may be attributed to unattainable sales targets, or the training

programs. Additional contextual variables also need to be considered such as the incentive plan—are PSRs being rewarded for behaviours that offend their customers such as pressuring physicians to make a commitment? Are their managers rewarding them inappropriately; call quantity rather than call quality? Are PSRs compromising their response time by prioritizing the requests of their company over their customer's needs? These are some examples of how the most thoughtful, strategic and valuable corporate objectives can be diverted if they are not properly communicated and aligned at all levels of the organization.

Evaluation

Evaluation is a way to assess the quality of a learning experience and the value of investing in training. It can expose whether training and business objectives are aligned and identify any barriers to the transfer of learning (Holly& Rainbird, 2000; Moore & Seidner, 1998). The majority of companies rely on superficial evaluations like "smiley sheets" that are usually related to the ability of a speaker to keep learners entertained, and the prowess of catering to keep lunch warm during a protracted session. This dependence on shallow evaluation techniques could be an indication that many trainers do not know how to evaluate a program or do not fully understand the benefits of evaluation. According to Drucker, "few…(organizations) have any idea what they are getting for all the money and effort they spend on training, let alone what they could be getting" (1985, p. 34). Evaluation, in a deeper sense, can heighten the contribution of training in organizational performance (Moore & Seidner, 1998).

Like training, evaluation is influenced by contextual factors, competing interests, values and viewpoints that make evaluation messy. Thus, it is not advisable to try and

isolate the effects of training because, 1) it is difficult and may produce misleading results, and 2) training does not improve performance directly; rather, when employees effectively use their learning in the workplace then effects on performance can be observed (Brinkerhoff, 1987). Alternatively, effective evaluation should focus on the entire training context and process.

Essentially, evaluation is a science and an art. The scientific aspect encompasses theory, techniques, process and context whereas the artistic component is skillfully applying the science into practical results (Kirkpatrick, 1998).

Part Two

Influence of Corporate Philosophy on New Representative Training

When queried about the objective of sales training at the company, the Manager of L&D commented, "I think it's two or three major points. First off, is to help them (PSRs) understand the customer-centred approach and that that's important, kind of that (company) philosophy." It appears clear from this response that the corporate philosophy permeated the thinking and planning of this manager. To what extent is this alignment merited by the philosophy and its communication? Or, is the acknowledgement and implementation of the philosophy into NRT due to a "good fit" with the approach of the L&D manager? The L&D manager responded, "This is…how I've always operated. I think it was…the recruiter had said when she first met me…'you and (the company President) are like two peas in a pod in terms of your philosophy.' So, I think that just kind of fit." This response echoes the comments of another manager, "I think in hiring sure you're going to pick a different person." A manager surmised:

When they hired the first group of reps…they didn't necessarily go just to the

industry, they hired people that you typically wouldn't think of hiring, teachers,

chefs…so that allows for a very different perspective to come in. You know

people don't know any better so they do what they were told as opposed to what

they did when they were at Glaxo or Astra.

This strategy has a number of positive implications on the NRT program. First, as

alluded to above, it may be easier to indoctrinate employees with the corporate culture

and philosophy. Second, relationships and process may be smoother and more efficient

because like-minded people abound in the organization. Third, implementation of the

corporate philosophy is virtually guaranteed because acceptance of it is the cost of

admission into the company. Nonetheless, these positive implications need to be

balanced with potentially negative consequences. For example, newly imbued PSRs

realized their naivety after NRT, "if you were not from the industry…you could easily

believe everything that you're saying" such as "in a certain environment, you can be

made to feel that selling mud is a good thing. Until you get a message back that mud is

wet, slimy and dirty and I don't want it, how do you respond back?" Another agreed, and

"you take those things that you learn and you…try them in the field…as you get out in

the field then you start to learn about what makes sense." This learning process may

inadvertently expose PSRs to uncomfortable situations with their customers, which is

counter to the aspiration of the corporate philosophy; to build "customer intimacy."

Additionally, PSRs may not be as enthusiastic or trusting in subsequent training sessions.

The notion that relationships and processes could be fluid is promising but dynamics

between "like-minded" people may discourage employees from challenging or pushing

each other to develop and agree on innovative programs that may create a competitive advantage. One manager disputed this point,

> With a few new hires…who don't understand the history or necessarily the values as much because we're not talking about them, and so they are very much, very streamlined, very much 'let's just get the job done and don't worry about' and that's not a criticism of them, that's just a style and I see that as a huge difference."

Assured implementation is the ambition of most senior managers particularly those in traditional organizations that thrive on hierarchical position and control. On the contrary, a knowledge-intensive firm, like the company under study, organizes work through influence and communication so there is "reciprocal responsibility." This environment should foster critical thinking rather than blind adoption of corporate strategies and process.

Some study participants thought the corporate philosophy fostered an "open, honest work environment" where "they give you a lot of freedom" and encouraged "independence of business thinking." The L&D manager connected this aspect of the philosophy to NRT:

> what we think of our employees, that they're adults, they've got brains, we assume, I think, the best of them, they've got good intentions, and they're willing, that they're going to learn what they have to be successful in their jobs…we do create a relaxed environment where people are more able to learn.

A PSR mentioned the "different learning environment…was very casual" and acknowledged, "that's the most effective way for me to learn." Even though other PSRs

did not explicitly mention the NRT environment, they did equate the company's "openness" with "more freedom to do the job." Sales managers also noted the influence of the corporate philosophy on NRT. One mentioned, "the (company) way is to kind of leave it open" but suggested, "I think there's some things that we can...add a bit more structure." Another manager admitted, "we talk about this all the time...how you can go into a meeting with your own agenda and you can drive your agenda because we don't really set strict agendas. So I went into all...of these training groups, with my own agenda as to what I thought I'd like to accomplish...but it's like we don't have a strong, this is where we're trying to get to." This "open" approach directly impacted the sales training component of NRT according to a few participants. One experienced PSR thought the HealthSync sales training module was "very limited in terms of actual selling skills" an opinion that was supported by a manager who proposed, "I think we need to adopt a bit more...formal sales training." The manager explained the rationale for more conventional sales training: "adopting the no role-play (practice) has...I think it's great in some instances...that's the way we are at (the company), if people don't like it then they don't have to do it which is a nice company to work for, but I still think people need the opportunity to practice." Another manager agreed, "we don't spend as much time on the selling skills, the traditional...role play, and we're always talking about role play and how do you learn without practicing?" Unlike the other two participants who were quite critical of the sales training module, this manager offered, "I do think we approach it differently, I don't think that's a bad thing...we can add...a bit more structure to it, but I do think what's nice about it is it gives the reps flexibility to go out and start getting to know their customers as the first objective...so they build up the credibility, and

then…once you've got the credibility and you've got your trust, then you're building in all the other information…whereas what often happens, you dump all the information and then you have to kind of backtrack."

Evidently, the physician-centred approach and the ubiquitous assumptions, processes and philosophies influenced NRT. Furthermore, the interview process uncovered inconsistencies that help deepen the understanding of how assumptions, processes and philosophies influence NRT. Specifically, proponents of a more formalized approach to sales training are essentially questioning the physician-centred philosophy that places the needs of physicians before the company's need to sell pharmaceuticals. These two study participants understand that the philosophy of the company is "very people-centred" and the sales philosophy "is very customer-centred which again is very different…more of an understand the customer and service and the value-added type of thing." Still, further analysis uncovered a perceptible contradiction when the philosophy was put into practice. Both participants shared stories about their former companies such as, "the boss would drive by at 8:30 in the morning and see whether your car was in the driveway" and "here's how to make a sale…put your next five patients on this or that." Even though both could not recommend these traditional approaches, they may inherently believe that they work based on their more systematic, disciplined framework. Nonetheless, neither participant disputed the overall success of the corporate philosophy, or sales training which was described by one of the doubting participants as an approach that "works well, and the doctors like it a lot better."

Influence of Corporate Philosophy on Evaluation

The role of evaluation was limited in NRT even though the Manager of L&D recognized the need to "start measuring more the degree of change that occurs and how much learning actually occurs as opposed to the smiley sheets that we have been doing." Two barriers to the implementation of evaluation surfaced; the main one was availability of corporate resources. The L&D manager explained, "to a large extent, as a new company without any support from our parent company, we are still building it (sales training)...so the objective is...let's just build the machine." So, in this case, evaluation was perceived as an added, rather than integral, component based on limited resources. Despite this barrier, the L&D manager reiterated, "the direction we're moving into is a focus on assessment." The President also confirmed, "there should maybe be more rigor in testing people to make sure they have the competencies before we send them out, before we allow them to do x, y, and z...perhaps more of a checks and balances along the way, a proven competency." While there was agreement that training evaluation was necessary, the L&D manager aired deeper concerns about evaluation, "it's our job to help them be as successful as they can be and so there's not this focus on negative assessment, evaluation, you know, pointing out people's mistakes and having more of a punitive environment...we'd like to think it's more...a relaxed environment where people are more able to learn." This second barrier is the perception that evaluation will change the corporate approach from "open" and "relaxed" to a formal, potentially negative environment associated with more traditional pharmaceutical companies. This transformation challenges one of the foundations upon which the corporate philosophy rests. A study participant lamented, "moving from a young company into more of a

mature company...we would need to...standardize more...people who joined early on, that they will struggle with that...because it's so not likely to work." Another participant directly linked corporate formality with corporate values, "more rules replace the values that are certainly much more important and they're not as emphasized...that is something as (the company) grows, is going to be the biggest challenge. Do we protect the values of our company and still trying to get...less rules?"

Even though evaluation was regarded as useful and necessary, significant impediments could slow its implementation. Specifically, the second barrier may be insurmountable unless there is a shift in thinking about what evaluation can offer. On the one hand, evaluation can change the learning environment into a formal classroom structured around the right answer, or it can free trainers to focus their attention on filling crucial learning gaps or deficiencies in the training program itself. Learners can be forced to stick with the program or they can individualize training to their needs. Evaluation can also uncover reasons for expanding or discontinuing particular programs, provide a management and learner progress report to inform organizational strategy, and outline the return of training investment.

Since evaluation is not an integral part of corporate training in this case, it is not surprising that the corporate philosophy has not influenced it.

Part Three

Effectiveness of New Representative Training

Questions about training effectiveness were based on two variables: influence and learning transfer.

Training Influence

Influence was defined as changes in learning, skills, attitudes, and behaviour of PSRs. All PSRs participating in the study reported that NRT influenced them in a positive manner. Two of the four PSR participants linked the influence of the training session to their interpretation of the corporate philosophy. For example, the PSR who commented, "they are a very people-oriented company...they value the opinions of people," mentioned that NRT "gave me a better appreciation for (the company) and the people that work for (the company)...it helped cement that I made the right decision." Another PSR described the corporate philosophy as, "people are allowed to be individuals within the company setting...you're empowered with the ability to gain a little bit of control of your own environment and your approach" and declared after NRT, "I was more effective...you feel confident as to what you do, and that translates back to you being an individual with a lot of success." The other two PSRs related the influence of NRT directly to specific training modules that improved their medical knowledge and sales planning skills.

Sales management also agreed that NRT influenced their PSRs. Responses ranged from changes in "attitude" due to the corporate philosophy to "structure of the call became more focused" and "solidifying some of the papers and some of the background."

Training Transfer

New skills, behaviours, attitudes, and learning alone do not equal training influence. Rather, these changes must be effectively used in order to improve performance. Transfer of training is defined as the direct application of learning, skills, behaviours and attitudes into the world of a PSR. In response to a question about

learning transfer, again all PSRs communicated that transfer of learning did occur but barriers influenced the flow of knowledge from the classroom to their workplaces. These barriers, and related facilitators, can be summarized into five categories: 1) program content, 2) program design and execution, 3) program participants, 4) organizational context, and 5) community/societal factors (Caffarella, 1994). Program content was a potential barrier for a PSR who believed "you've got to take the key points of training that make sense to you as a person." In this situation, the fit between the needs of the PSR and the session objectives did not always match. For example, this PSR was skeptical about the medical and marketing foundation of the product as evidenced by the comment, "I have to admit that for the first 6 months, I never talked about efficacy, I actually thought the argument was a bit hokey." This PSR needed to "learn about what makes sense" from the physician viewpoint rather than from the product, company, or PSR perspective. Perhaps if this PSR were involved in the program design then these needs would have been expressed and the outcome would instead be increased motivation and confidence about transferring knowledge about product efficacy to the physicians. Also related to program design and execution is post-training follow up. Another PSR "didn't find it difficult to translate my experience and New Rep Training into the work environment" but "found it difficult five months later, memory isn't that good anymore." Lack of reinforcement was a barrier to continuous transfer of training.

The profile of program participants can also influence transfer. That is, prior experience, knowledge and self-efficacy can shape the transfer process. For example, an experienced PSR found transfer "very easy because there were some key things that I was looking for. I knew the questions that I needed answers to going in." In this case,

training was maneuvered to suit the PSRs needs whereas an unseasoned PSR was not sure what to expect or look for in NRT and remarked "it's not as easy as it seems when you're in training...so, as nice, as nicely as it goes, it's still make believe."

With respect to organizational context, sales management and corporate support is crucial in creating an environment where PSRs feel encouraged to transfer their learning. Sales managers can facilitate the transfer process by simplifying their expectations, "we didn't focus on too many things, the goal was really to get out and start doing it." Further, providing adequate time for training and transfer is a common barrier because many companies and managers do not support PSRs being "off territory." Organizational climate motivated one sales manager who "struggled with (time away from work) because to me it's a big deal." The manager explained, "I understand the philosophy...I've decided to go with it instead of against it." As expected, this manager's support was rewarded with a PSR who "got off to a great start."

Community and societal factors can also influence transfer of training. Lifelong learning initiatives and rapid advances in medicine foster the need for successful training transfer. If physicians do not perceive PSRs as a knowledge source, then the foundation of the pharmaceutical sales process will erode.

Measures of Evaluation

Finally, according to the Four Levels model, the purpose of evaluation is to determine the effectiveness of a training program (Kirkpatrick, 1998). Level One, or reaction, was implemented in NRT and therefore should be another indication of training efficacy. PSRs scored these "smiley sheets" immediately after each training session and rated their overall satisfaction of NRT as 8.7 on a scale of 10. (see Appendix D). This

instrument is an adequate indication of how pleased PSRs were with NRT although it is limited in terms of reliability and accuracy because the group was small, the questionnaire was not standardized, and participants may have responded optimistically if they felt pressured. Nonetheless, many corporations rely on Level One evaluation to determine if training is beneficial and valuable. While this surface evaluation is arguably better than no evaluation, it is not sensitive enough to explain how and why training was effective and more importantly, how training influences organizational performance.

Research Conclusions

A framework can now be outlined to further clarify how one company's context shaped its organizational learning and performance. The central concepts in this study are workplace learning, training, and evaluation. They are all connected to each other along with other corporate influences such as philosophies, assumptions, and processes. A visual depiction of this conceptual connectivity is shown below in Figure 3. The explanation for how these variables relate is: organizational performance is influenced by a number of integrated contextual variables such as corporate philosophy, assumptions, and processes. These major contextual variables influence minor variables such as corporate culture, strategy, resources, structure, learning, training and evaluation. Each variable will ebb and flow in terms of its influence on organizational performance, depending on the demands of external context.

For example, a significant external threat (e.x., competition) could challenge organizational resources, strategy, culture, learning, and structure to respond. If the corporate philosophy, assumptions and processes are aligned, then the organization will respond to the threat systematically. That is, "organizations are like giant networks of

interconnected nodes. Changes…in one part of the organization can affect other parts of

the organization" (Stata, 1989, p. 5). So, workplace learning, training, and its evaluation

should not be isolated from organizational philosophy, assumptions, processes, strategy,

culture and other related variables (Hansen, 2000; Moore & Seidner, 1998; Whitfield &

Poole, 1997; Brinkerhoff, 1987).

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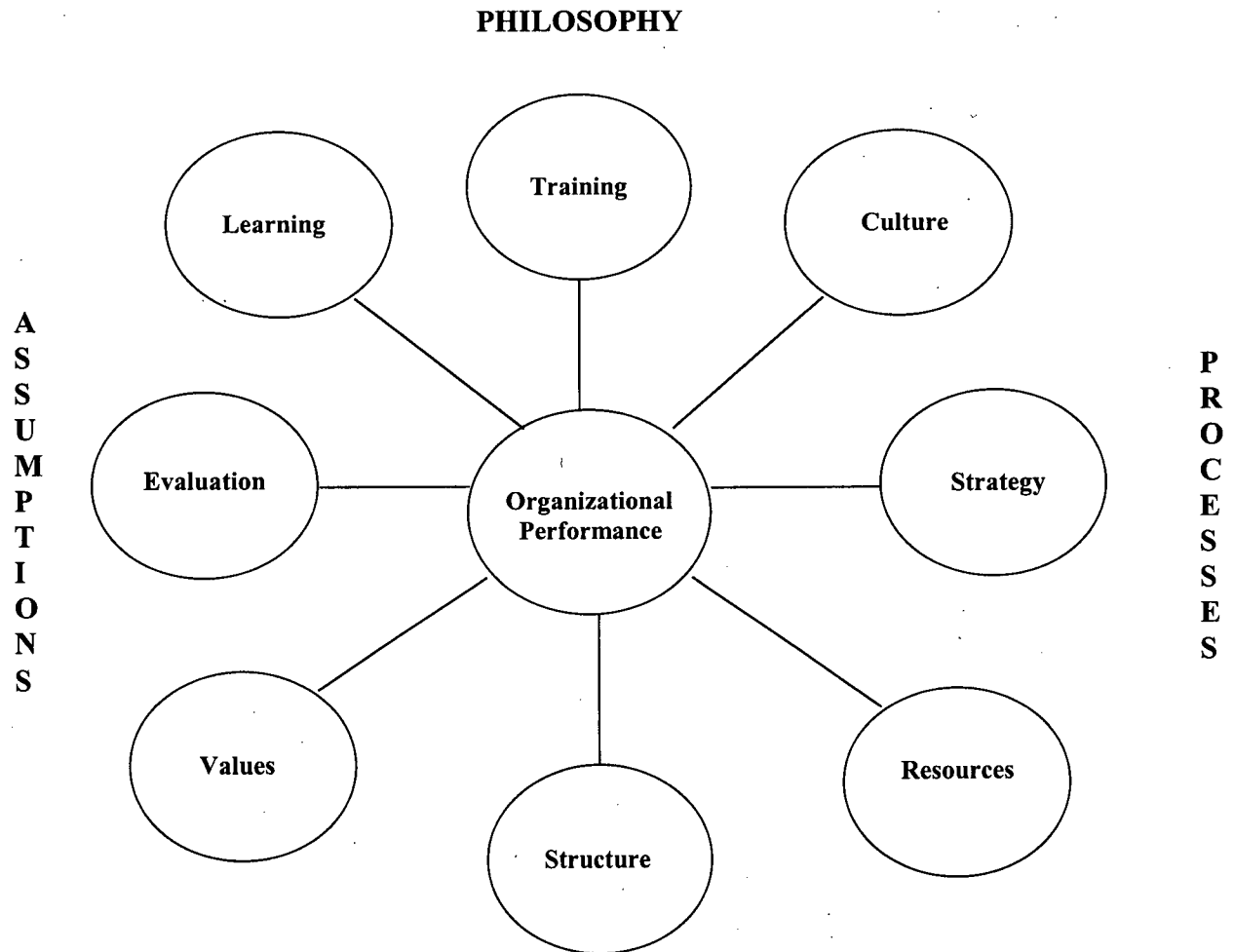
Figure 3. A systems framework of organizational performance and the influence of

workplace learning, training, and evaluation

This framework is also relevant to assessing the influence of NRT on corporate

performance. In this case study, NRT objectives were aligned with the corporate

philosophy so trained PSRs were subjected to the concepts of being physician-centred and balanced in their personal and professional lives. Moreover, NRT was linked to the corporate priorities outlined by the corporate Leadership Committee; priorities that are crafted to directly improve corporate performance. Thus, training was not isolated from contextual variables such as corporate philosophy and strategy; this interaction likely resulted in NRT effectiveness and improved corporate performance. Nevertheless, training is one of many variables that can affect organizational performance (Rummler & Brache, 1994).

In conclusion, an improved understanding of the philosophy, assumptions, and processes of a Canadian pharmaceutical company suggests that training is only one part of an integrated, holistic system that affects performance, regardless of its' efficacy. Therefore, training, like workplace learning and evaluation, cannot claim sole or specific responsibility for the performance improvement of the company.

CHAPTER SIX

IMPLICATIONS

This final chapter will present implications of the research results and study recommendations to facilitate application of the study results into practice.

Implications for Corporate Organizations

The corporate workplace is vital because it provides essential goods and services to society, and improves the quality of life of employees and customers. It is generally accepted that the workplace is the predominant site of adult education today. Clearly, workplace learning and training should focus on the aims of the corporate sponsor. Corporations need to be cognizant of the influence of their values, cultures and philosophies and consider their responsibility to develop their employees and communities (Rainbird, 2000). Furthermore, organizational performance is influenced by contextual variables such as corporate philosophy, assumptions, and processes. Companies should actively understand and align these variables with their business objectives to ensure effective resource deployment.

Implications for Adult Education

Workplace learning is an exciting area of development for practitioners and theorists from a number of disciplines, including adult education. The most pressing implications for adult educators are to ensure: 1) the interests of learners are not co-opted by the needs of business and government and 2) equal access to lifelong and workplace learning. Additionally, the continued development of a comprehensive theory or framework to explain workplace learning, training and evaluation would be of great value (Caldwell, 2000).

Implications for Sales Training

Corporate training is one of many variables that affects performance (Rummler & Brache, 1994). It is often training that comes to mind when a performance need arises because training is often defined as a way to fix skill, knowledge, and performance deficiencies that impair work. This research supports the idea that training should be used as a strategic lever, despite literature that reports strategic integration of training has generally not been achieved. Further, companies who do not maximize their training efforts by aligning training to corporate strategies could be wasting monetary and human resources. Additionally, to facilitate transfer of learning to the workplace, barriers should be considered and removed if possible. If training objectives and tactics are aligned with corporate priorities then barriers to applications of training should dissolve. Involving learners and managers in the development, execution and follow-up of training should accommodate this imperative. Finally, shifting the emphasis from training to learning will help companies adapt to contextual shifts and consequently, improve corporate performance (Brown, 1998).

Implications for Training Evaluation

Research results support a segment of evaluation literature that concludes: determining the effects of training is difficult due to myriad factors that influence organizational performance. This summation does not mean that training evaluation should be abandoned. Rather, stakeholder expectations of training and its evaluation may need to be shifted: training is not an event but an ongoing, integral part of a systematic process contributing to organizational improvement. Thus, efforts to isolate the effects of training or determine R.O.I. are blinded to the influence other variables have on learning,

its transfer, and effect on corporate performance. Notably, organizational context is not an extraneous variable and should not be managed as such.

Furthermore, evaluation should not be an afterthought to training; its purpose and value should be assessed before, during and after program planning. During this process, training practitioners should examine stakeholder needs and implement evaluation measures that fit those needs. For example, the goal of some training programs is merely to satisfy the learner. In this example, use of Level four or results evaluation is analogous to hitting a fly with a hammer when a fly swatter will suffice.

An additional challenge to the evaluation of training is the paucity of reliable, valid measures. The "Four levels" and "R.O.I." models are useful but have limitations. The "impact evaluation" model is more consistent with the recommendations above but may be an unrealistic expectation from a group that relies heavily on smiley sheets to understand and manage their contributions to training and organizational performance.

In this case study, management had a narrow and negative perspective of evaluation. The results of this study demonstrate that training evaluation can offer more than competency ratings and assessments. Evaluation can be a valuable strategic tool if it is aligned with corporate performance objectives and is viewed as part of a holistic system.

Implications for Healthcare Practitioners and Industry

The close collaboration between healthcare practitioners and the pharmaceutical industry is evident throughout the history of health care delivery in North America. Examples of this partnership are: research funding, information, access to treatments and medical education. According to literature, physicians are more likely to form positive

impressions of the pharmaceutical industry when they feel that their needs are understood and when companies are focussed on patients not profit (Creyer & Hrsistodoulakis, 1998). This research explored a pharmaceutical company and training program that was physician-centred. It follows that physician-centred PSRs will appreciate and understand the customer frame of reference more than product-centred PSRs. Healthcare practitioners and medical associations that develop and disseminate guidelines on the appropriate relationship between physicians and industry should find this case study and results promising. According to these guidelines, the primary objective of the relationship between physicians and industry is to improve the health of patients (CMA, 2000). Thus, companies and PSRs that are physician-centred should ultimately be patient-centred because the primary obligation of the physician is the patient. Contrast this with product-centred companies whose primary aim is promotion of their products. As stated earlier, the pharmaceutical industry is currently product-centred because physicians respond in a relatively positive manner to this approach. However, it is not clear whether a physician or customer-centred approach delivers more profit to the company than a product-centred approach. Nonetheless, according to a comparison of forecasted total sales and actual total sales (see Appendix C), the physician-centred corporate philosophy "paid off."

Further Research

Suggested future research could include identifying key variables from this qualitative research and testing them quantitatively. Additionally, qualitative interviews with physicians would be of value to ascertain whether the physician-centred approach of the company and PSRs is different compared to other pharmaceutical companies (i.e.,

product-centred approach) and if it influences their impressions and prescription activity. Considering that physicians do not acknowledge the influence of industry on their prescription behaviour, a retrospective review of prescription sales would be necessary. In terms of sales training, it would be useful to ask PSRs, their customers, and sales managers to track any changes in attitudes, behaviours, skills, and knowledge pre and post-training. Additionally, organizational performance objectives could be quantified and measured in concert. Finally, further research to clarify how physicians learn during pharmaceutical detailing would be of great value to both physicians and the pharmaceutical industry (Slotnick & Kristjanson, in press).

REFERENCES

Adler, P.S., & Cole, R.E. (1994). Rejoinder. <u>Sloan Management Review,</u> Winter, 45-49.

Andaleeb, S.S., & Tallman, R.F. (1995). Physician attitudes toward pharmaceutical sales representatives. <u>Health Care Management Review</u>, Summer.

Anderson, J.R. (1983). <u>The architecture of cognition</u>. Cambridge: Harvard University Press.

American Society for Training and Development. (1993, October). <u>Training industry report</u>. ASTD.

American Society for Training and Development. (2000). <u>The 2000 ASTD state of the industry report</u>. ASTD.

Angus Reid Group. (1991). <u>Credibility and the marketing mix</u>. Angus Reid Group.

Argyris, C., & Schon, D.A. (1978). <u>Organizational learning: A theory of action perspective</u>. Reading, MA: Addison-Wesley.

Avorn, J., Chen, M., & Hartley, R. (1982). Scientific versus commercial sources of influence on the prescribing behavior of physicians. <u>The American Journal of Medicine, 73</u>, 4-8.

Avorn, J., & Soumerai, S.B. (1983). Improving drug-therapy decisions through educational outreach: A randomized controlled trial of academically based "detailing." <u>New England Journal of Medicine, 308,</u> 1457-63.

Baldwin, T.T., & Ford, J.K. (1988). Transfer of training: A review and directions for future research. <u>Personnel Psychology, 41,</u> 63-105.

Barnett, R. (1999). Learning to work and working to learn. In D. Boud & J. Garrick (Eds.), Understanding Learning at Work (pp. 29-45). New York: Routledge.

Bennett, N.L., Davis, D.A., Easterling, W.E., Friedmann, P., Green, J.S., Koeppen, B.M., Mazmanian, P.E., & Waxman, H.S. Continuing Medical Education: A new vision of the professional development of physicians. Academic Medicine, 75 (12), 1167-1172.

Bernthal, P.R. (1995). Evaluation that goes the distance. Training & Development, September, 41-45.

Blanchard, P.N., & Thacker, J.W. (1999). Effective training: Systems, strategies, and practice. NJ: Prentice Hall.

Blanchard, P.N., Thacker, J.W., & Way, S.A. (2000). Training evaluation: Perspectives and evidence from Canada. International Journal of Training and Development, 4(4), 295-304.

Boud, D. & Garrick, J. (1999). Understanding learning at work. London: Routledge.

Brinkerhoff, R.O. (1988). An integrated evaluation model for HRD. Training and Development Journal, February, 66-68.

Brinkerhoff, R.O. (1987). Achieving results from training: How to evaluate human resource development to strengthen programs and increase impact. San Fransisco: Jossey-Bass.

Brookfield, S.D. (1986). Understanding and facilitating adult learning. San Francisco: Jossey-Bass.

Brown, S.M. (1998). The changing context of practice. In S.M. Brown & C.J. Seidner (Eds.) Evaluating corporate training: Models and issues. Boston: Kluwer Acadmic Publishers.

Caffarella, R.S. (1994). Planning programs for adult learners: A practical guide for educators, trainers, and staff developers. San Francisco, CA: Jossey-Bass.

Caldwell, P. (2000). Adult Learning and the Workplace. In H. Rainbird (Ed.), Training in the Workplace: Critical Perspective on Learning at Work (pp. 244-263). Hampshire: MacMillan Press.

Campbell, J.P. (1989). The agenda for training theory and research. In I.L. Goldstein (Ed.), Training & development in organizations (pp. 469-486). San Francisco: Jossey-Bass.

Canadian Medical Association (2000). Physicians and the pharmaceutical industry, CMA.

Carey, S. (2000). The organisation of the training function in large firms. In H. Rainbird (Ed.), Training in the workplace: Critical perspectives on learning at work (pp. 18-38). Hampshire: MacMillan Press.

Casey, C. (1999). The changing contexts of work. In D. Boud & J. Garrick (Eds.), Understanding learning at work. (pp. 15-28). London: Routledge.

Cervero, R.M. (1990). The importance of practical knowledge and implications for continuing education. The Journal of Continuing Education in the Health Professions, 10, 85-94.

Cervero, R.M., & Wilson, A.L. (1994). Planning responsibly for adult education: A guide to negotiating power and interests. San Francisco: Jossey-Bass.

Creyer, E., & Hrsistodoulakis, I. (1998). Marketing pharmaceutical products to physicians. Marketing Health Services, 18(2), 34-38.

Cross, K.P. (1981). Adults as learners: Increasing participation and facilitating learning. San Francisco: Jossey-Bass.

Darkenwald, G., & Merriam, S. (1982). Adult education: Foundations of practice. New York: Harper and Row.

Davidson, H.S. (1995). Making needs: Toward a historical sociology of needs in adult and continuing education. Adult Education Quarterly, 45, 183-196.

Davis, D.A., O'Brien, M.A., & Taylor-Vaisey, A. (1999). Impact of formal continuing medical education: Do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or health care outcomes? JAMA, 282(9), 867-874.

Davis, D.A., Thomson, M.A., Oxman, A.D. & Haynes, R.B. (1992). Evidence for the effectiveness of CME: A review of 50 randomized controlled trials. JAMA, 268, 1111-1117.

Davis, D.A.; Thomson, M.A., Oxman, A.D., & Haynes, R.B. (1995). Changing physician performance: A systematic review of the effect of continuing medical education strategies. JAMA, 274, 700-5.

Despres, C. & Hiltrop, J.M. (1995). Human resource management in the knowledge age: Current practice and perspectives on the future, Employee Relations, 17(1): 9-23.

Dionne, P. (1996). The evaluation of training activities: A complex issue involving different stakes, Human Resource Development Quarterly, 7, 279-286.

Drucker, P.F. (1995, March 26). A growing mismatch of jobs and job seekers. Wall Street Journal, pp. 34.

Drucker, P.F. (1990). The Emerging Theory of Manufacturing, Harvard Business Review, 68, 3, 94-102.

Drucker, P.F. (1992). Managing for the future. Oxford: Butterworth-Heinemann.

Dunlop, J. (1992). The challenge of human resources development, Industrial Relations, 31, 50-55.

Elias, J., & Merriam, S. (1980). Philosophical foundations of adult education. Malabar: Robert E. Krieger Publishing Co.

Erffmeyer, R.C., & Johnson, D.A. (1997). The future of sales training: Making choices among six distance education methods. Journal of Business & Industrial Marketing, 12(3), 185-195.

Eurich, N.P. (1985). Corporate classrooms: The learning business. Lawrenceville: Princeton University Press.

Fox, R.D. (1994). Planning continuing education to foster the transfer of learning. Adult Learning, 5(4), 24-25.

Fox, R.D., & Bennet, N. (1998). Learning and change: Implications for continuing medical education. BMJ, 316 (7129), 466-8.

Fox, R.D., Mazmanian, P.E., & Putnam, R.W. (1989). Changing and learning in the lives of physicians. New York: Praeger.

Fox, R.D., Rankin, R., Costie, K.A., Parboosingh, J., & Smith, E. (1997). Learning and adoption of innovations among Canadian radiologists. Journal of Continuing Education in the Health Professions, 17, 173-86.

Geber, B. (1995). Does your training make a difference? Prove it! Training, March, 27-34.

Geertsma, R.H., Parker, R.C. Jr., & Whitbourne, S.K. (1982). How physicians view the process of change in their practice behaviour. Medical Education, 57, 752-61.

Gordon, J. (1991). Unspecified training article, Training, 28(8), 19-30.

Goulet, F., Gagnon.R.J., Desrosiers, G., Jacques, A., & Sindon, A. (1998). Participation in CME activities. Canadian Family Physician, 44, 541-548.

Guba, E., & Lincoln, Y. (1989). Fourth generation evaluation. Newbury Park: Sage Publications.

Guest, D. (1987). Human resource management and industrial relations. Journal of Management Studies, 24(September), 503-21.

Guyatt, G. (1994). Interacting with the pharmaceutical industry (Letters), CMAJ, 151(6), 731-732.

Hamblin, A.C. (1974). Evaluation and control of training. New York: McGraw-Hill.

Hansen, B. (2000). Performance Management & Training. In Rainbird, H. (Ed.) Critical Perspectives on Learning at Work. New York: St. Martin's Press.

Haynes, R.B., Davis, D.A., McKibbon, A., & Tugwell, P. (1984) A critical appraisal of the efficacy of continuing medical education. JAMA, 251, 61-64.

Hodges, B. (1995). Interactions with the pharmaceutical industry: Experiences and attitudes of psychiatry residents, interns and clerks. CMAJ, 153(5), 553-559.

Hollway, W. (1991). Work psychology and organizational behaviour, London: Sage.

Holly, L. & Rainbird, H. Workplace learning and the limits to evaluation. In H. Rainbird (Ed.) Critical Perspectives on Learning at Work. New York: St. Martin's Press.

Huston, P. (1993). Doctors want more industry-sponsored meetings. Medical Marketing and Media, 28, 48-53.

Hyman, R. (1997). The new division of labour: Emerging forms of work organization in international perspective. In W. Littek & T. Charles (Eds.), Organization Studies, 18, 2, 350-2.

IMS Health. (1999). Physician view: The ideal medical representative. IMS Health, Canada.

Jackson, S.E., Schuler, R.S., & Rivero, J.C. (1989). Organizational characteristics as predictors of personnel practices. Personnel Psychology, 42, 727-785.

Jarvis, P. (1987). Adult learning in the social context. New York, NY: Croom Helm.

Jennett, P.A., Jones, D., Mast, T., Egan, K., & Hotvedt, M. (1994). Characteristics of self-directed learning. In: D.A. Davis and R.D. Fox (Eds.), Physicians as learners (pp. 47-65). Chicago: American Medical Association.

Kirkpatrick, D.L. (1998). Evaluating training programs: The four levels. San Francisco: Berrett-Koehler.

Knowles, M.S. (1975). <u>Self-directed learning: A guide for learners and teachers</u>. New York: Association Press.

Knowles, M.S. (1980). <u>The modern practice of adult education: From andragogy to pedagogy (rev. ed.)</u> Englewood Cliffs, N.J.: Prentice-Hall.

Knowles, M.S. (1982). <u>The modern practice of adult education</u>. Chicago: Follett.

Kowalski, T.J. (1988). <u>The organization and planning of adult education</u>. Albany: State University of New York Press.

Latham, G.P. (1988). Human resource training and development. <u>Annual Review of Psychology, 39</u>, 545-582.

Lexchin, J. (1993). Interactions between physicians and the pharmaceutical industry: What does the literature say? <u>CMAJ, 149</u>(10), 1401-1407.

Lurie, N., Rich, E.C., Simpson, D.E. et al. (1990). Pharmaceutical representatives in academic medical centers: Interaction with faculty and housestaff. <u>Journal of General and Internal Medicine, 5</u>, 240-243.

McDougall, M., & Beattie, R.S. (1998). The missing link? Understanding the relationship between individual and organisational learning. <u>International Journal of Training and Development, 2</u>(4), 288-299.

McKinney, P.W., Schiedermayer, D., Lurie, N., Simpson, D., Goodman, J., and Rich, E. (1990). Attitudes of internal medicine faculty and residents toward professional interaction with pharmaceutical sales representatives. <u>JAMA, 264</u>, 1693-97.

McMillan, J.H., & Schumacher, S. (1997). <u>Research in education: A conceptual introduction</u> (4th ed.). New York: Addison-Wesley.

Marquardt, M.J., Nissley, N., Ozag, R., and Taylor, T.L. (2000). International briefing 6: Training and development in the United States. <u>International Journal of Training and Development, 4</u>(2), 138-149.

Marsick, V.J., & Watkins, K.E. (1990). <u>Informal and incidental learning in the workplace</u>. New York: Routledge.

Mazzullo, J. (1972). The nonpharmacologic basis of therapeutics. <u>Clinical Pharmacology Therapeutics, 13,</u> 157-158.

Meister, J.C. (1998). <u>Corporate universities: Lessons in building a world-class work force</u>. New York, McGraw-Hill.

Merriam, S.B. (1988). <u>Case study research in education: A qualitative approach</u>. San Francisco, Jossey-Bass.

Mezirow, J. (1996). Contemporary paradigms of learning. <u>Adult Education Quarterly, 46</u>(3), 158-172.

Moore, C.A., & Seidner, C.J. (1998). Organizational strategy and training evaluation. In S.M. Brown & C.J. Seidner (Eds.) <u>Evaluating corporate training: Models and issues</u>. Boston: Kluwer Acadmic Publishers.

Morrow, C.C., Quintin, J.M., & Rupinski, M.T. (1997). An investigation of the effect and economic utility of corporate-wide training. <u>Personnel Psychology, 50</u>(1), 91-119.

Neufeld, V.R., & Barrows, H.S. (1984). Preparing medical students for lifelong learning. In M.S. Knowles (Ed.), <u>Andragogy in action: Applying modern principles in adult learning</u> (pp. 207-226). San Franscisco: Jossey-Bass.

Newstrom, J. (1978). Catch 22: The problems of incomplete evaluation of training. Training & Development Journal, 32, 22-24.

Noe, R.A. (1986). Trainees' Attributes: Neglected influences on training effectiveness. Academy of Management Review, 11, 736-749.

Ottoson, J.M. (1997). After the applause: Exploring multiple influences on application following adult education programs. Adult Education Quarterly, 17(1), 46-55.

Parry, S.B. (1996). Measuring training's ROI. Training & Development, May, 72-77.

Patton, M.Q. (1987). How to use qualitative methods in evaluation. Newbury Park: Sage Publications.

Peay, M.Y., & Peay, E.R. (1998). Patterns of preference for information sources in the adoption of new drugs by specialists. Sociological Scientific Medicine, 31, 467-476.

Phillips, J.J. (1983). Handbook of training evaluation and measurement methods. Houston: Gulf Publishing Company.

Phillips, J.J. (1996). ROI: The search for best practices. Training & Development, February, 42-47.

Phillips, J.J. (1997). A rational approach to evaluating training programs…including calculating ROI. Journal of Lending and Credit Risk Management, 79, 43-50.

Putnam, R.W., & Campbell, M.D. (1989). Competence. In R.D. Fox, Mazmanian, P.E., & Putnam R.D. (Eds). <u>Changing and Learning in the Lives of Physicians</u> (pp.79-97). New York: Praeger.

Rainbird, H. (2000). <u>Training in the workplace: Critical perspectives on learning at work</u>. New York: St. Martin's Press Inc.

Ralphs, L.T., & Stephan, E. (1986). HRD in the Fortune 500. <u>Training and Development Journal, 40,</u> 69-76.

Rees, C. (2000). Training and New Forms of Work Organization. In H. Rainbird (Ed.), <u>Training in the workplace: Critical perspectives on learning at work</u> (pp. 126-147). New York: St. Martin's Press Inc.

Robinson, D.G., & Robinson, J.C. (1989). <u>Training for impact: How to link training to business needs and measure the results</u>. San Francisco: Jossey-Bass.

Rose, A.D. (1998). Adult education and the workplace: Old issues, new dilemmas. <u>Adult Learning</u>, Summer, pp. 4-5.

Rose, A.D. (1999). Adult education as a means, but not an end: United States policy in the twentieth century. <u>Adult Learning</u>, Spring, pp. 4-5.

Rossett, A. (1997). That was a great class, but... <u>Training & Development</u>, July.

Rummler, G.A., & Brache, A.P. (1994). <u>Performance improvement</u>. (2nd ed.). San Francisco: Jossey-Bass.

Sanders, J.R. (1994). <u>The program evaluation standards.</u> (2nd ed.). The Joint Committee on Standards for Educational Evaluation. Thousand Oaks: Sage.

Schon, D.A. (1990). <u>Educating the reflective practitioner: Toward a new design for teaching and learning in the professions</u>. San Fransisco: Jossey Bass.

Scriven, M. (1983a). Evaluation ideologies. In G.F. Madaus, M. Scriven, & D.L. Stufflebeam (Eds.), <u>Evaluation models: Viewpoints on educational and human services evaluation</u>. (pp. 229-260). Boston: Kluwer-Nijhoff.

Selman, G., and Dampier, P. (1991). <u>Foundations of adult education in Canada</u>. Toronto: Thompson Educational Publishing.

Senge, P.M. (1996). The leader's new work: Building learning organizations. In K. Starkey (Ed.). <u>How organizations learn</u> (pp. 288-315). London: International Thomson Business Press.

Senker, P. (2000). What and how do engineers learn? In H. Rainbird (Ed.) <u>Critical Perspectives on Learning at Work</u>. New York: St. Martin's Press.

Shadish, W.R., Cook, T.D., & Leviton, L.S. (1991). <u>The foundations of program evaluation</u>. Newbury Park: Sage.

Slotnick, H.B. & Kristjanson, A.F. (in press). How physicians 'learn' from pharmaceutical representatives: An exploration. <u>Academic Medicine</u>.

Slotnick, H.B. (1999). How doctors learn: Physicians' self-directed learning episodes. <u>Academic Medicine, 74</u>(10), 1106-1113.

Slotnick, H.B., Kristjanson, A.F., Raszkowski, R.R., & Moravec,R. (1998). A note on mechanisms of action in physical learning. <u>Professional Education Research Quarterly, 18,</u> 107-18.

Snell, L. (2000). What Works in CME…and Why? <u>A.P.M.R. presentation</u>.

Sork, T.J. (1988). Ethical issues in program planning. In R.G. Brockett (Ed.). <u>Ethical issues in adult education (pp. 34-50)</u>. New York: Teachers College Press, Columbia University.

Stata, R. (1989). Organizational learning: The key to management innovation. Sloan Management Review, Spring, 63-74.

Statistics Canada. (2001). Perspectives on Labour and Income, 13(1), 1-84. Minister of Industry.

Tannenbaum, S., & Yukl, G. (1992). Training and development in work organizations, Annual Review of Psychology, 43, 399-441.

Torraco. R.J. (1999). Integrating learning with working: A reconception of the role of workplace learning. Human Resource Development Quarterly, 10(3), 249-266.

U.S. Department of Education. (October, 1993). EduVentures: The education industry report. Lehman Brothers and ASTD.

Whitfield, K., and Poole, M. (1997). Organising employment for high performance: Theories, evidence and policy. Organisation Studies, 18, 5, 745-64.

Witkin, B.R. (1984). Assessing needs in educational and social programs. San Francisco: Jossey-Bass.

Woollard, R.F. (1993). Addressing the pharmaceutical industry's influence on professional behaviour (Letter to the editor). CMAJ, 149(4), 403-404.

Yin, R.K. (1994). Case study research: Design and methods. (2nd ed.). Thousand Oaks, California: Sage Publications Inc.

Zuboff, S. (1988). In the age of the smart machine. New York: Basic Books.

APPENDICES

APPENDIX A
INTERVIEW QUESTIONS

1. How would you describe the approach or philosophy of ███████?
2. Is this approach the same or different from the approach of other pharmaceutical companies?
3. Describe how ████ approach is the same or different from the approach of other pharmaceutical companies.
4. Does ████ approach have any impact on your daily work?
5. Can you give any examples of how it impacts your daily work?
6. Does ████ approach have any impact on your customers?
7. Can you give any examples of how it impacts on your customers?
8. Can you describe your experience in New Rep Training?
9. Is ████ pharmaceutical sales training the same or different from other pharmaceutical company sales training?
10. Describe how ████ sales training is the same or different from other pharmaceutical company sales training.
11. Did New Rep Training have any impact on your daily work?
12. Describe how New Rep Training impacted your daily work.

APPENDIX B
CORPORATE DOCUMENTS

SEPT. 26 1997

INITIAL ADVERT IN CANADA

███ PHARMACEUTICALS CANADA

Managing Director

███████ is a $1.5 billion, research-based pharmaceutical company headquartered in Germany and employing over 6,000 people worldwide. Their labs have developed new pharmaceutical compounds in the areas of respirology and gastroenterology that provide significant benefits to patients, physicians and governments alike. ██████ is now poised to build a Canadian operation based in Toronto.

As ██ Canada's first Managing Director, you will establish the company's Canadian presence and develop the respected and admired corporate image that ████████ has achieved around the world. Your initial challenges will be to create the first Canadian business plan, hire a talented management team and establish an attractive, productive working environment.

You have built, managed and motivated a sales and/or marketing department for a competitive pharmaceutical company in Canada. You have developed broad general management skills and proven your ability to build relationships while maintaining a commitment to the bottom line. Experience reporting to a corporate head office outside of Canada would be an asset. Your university degree is in Business or Science and may be complemented by an MBA.

If this exciting opportunity might be your next logical career step, please send your resume in complete confidence, quoting Project 2485, to Lovas Stanley/Paul Ray Berndtson Inc., P.O. Box 125, Royal Bank Plaza, 200 Bay Street, Toronto, Ontario M5J 2J3. Confidential fax: (416) 366-7353. Internet address: LMK@PRBCAN.COM

PAUL RAY BERNDTSON

VANCOUVER • CALGARY • TORONTO • OTTAWA • MONTREAL

Regional Understanding. National Perspective. Global Reach.
Building superior corporate leadership world-wide through 35 offices

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VALUES

1. Integrity

We demonstrate uncompromising honesty, fairness and ethical behaviour in all that we do.

Key Practices

a. Deliver on commitments to internal and external customers.
b. Express and stand up for personal beliefs.
c. Appreciate and acknowledge the contribution of everyone.
d. Take responsibility for the effective stewardship of ▇▇▇ resources.

2. Innovation

We explore and implement creative solutions that are preferred by our customers.

Key Practices

a. Add value in everything we do.
b. Continually ask ourselves "are we doing the best we can?"
c. Encourage calculated risk-taking in a learning environment.

3. Performance Driven

We achieve goals with an entrepreneurial spirit that empowers people to take ownership of results.

Key Practices

a. Set motivating goals.
b. Results are achieved while being consistent with our values.
c. Each individual takes initiative and responsibility to bring up and resolve issues.
d. Advancement will be based on merit.

4. Mutual Respect and Open Communication

We balance our personal and professional lives.

Key Practices

a. Use personalized communication.
b. Seek to understand and then to be understood.
c. Communicate in a manner that welcomes forthright input, focusing on the issue not the messenger.
d. Keep an open mind and be respectful of an individual's ideas and beliefs.
e. Operate in a manner that fosters teamwork by:
- Encouraging dialogue about roles and responsibilities
- Discouraging destructive comments about others
- Promoting the values of constructive debate

5. Balanced Life

We balance our personal and professional lives.

Key Practices

a. Recognize your responsibility to maintain a balanced life.
b. Celebrate and share success.
c. Keep a sense of humour and have fun!

6. **PRIORITIES** ███

1. **To ensure continuance of the** ███ **business beyond the year 2006**

███████████████████████████

2. **Develop the** ███████ **portfolio to market**

███████████████

3. **Develop a Human Resources strategy focussing on acquiring, retaining and developing our human capital**
- Leadership training
- New employee orientation and recruitment
- Compensation structure to ensure retention
- Manage performance values

4. **Keep** ██████████ **on track**

███████████████████

5. **Earn Preferred Status from our customers**

███████████████

- Create "Added Value" initiatives for key customers

███████████████

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STRUCTURE

Organizational charts

March 2002

```
                    President & CEO
                          |
                          |_____ Corporate Communications/
                          |            Executive Assistant
    _____|_____
    |           |            |              |              |          |
Director,    Director    Director,      Director, Marketing  Director, Sales   Director,
Clinical &   Regulatory Affairs  Human Resources  & Business              Finance and IT
Scientific Affairs  & Quality Assurance           Development
```
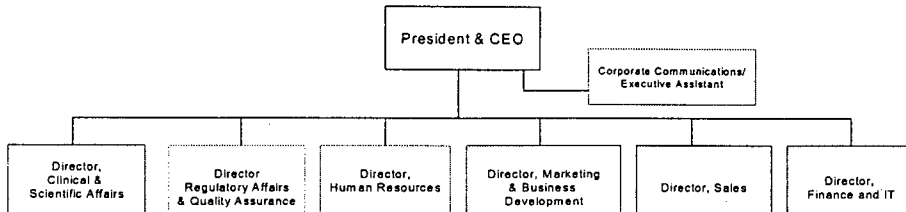
Leadership Committee

March 2002

HUMAN RESOURCES

```
                    Director,
                  Human Resources
        _____|_____
        |               |                       |
    Manager,        H.R. Coordinator        Manager, L & D
  Human Resources                                 |
        |                                         |
   H.R. Associate                          L & D Associate      <- In Sales Budget
        |                                         |
  HRIS/Benefits                               Vacant
   Coordinator                            L & D Consultant
                                                  |
                                          L & D Coordinator    *Replacing on development
                                                               opportunity
```
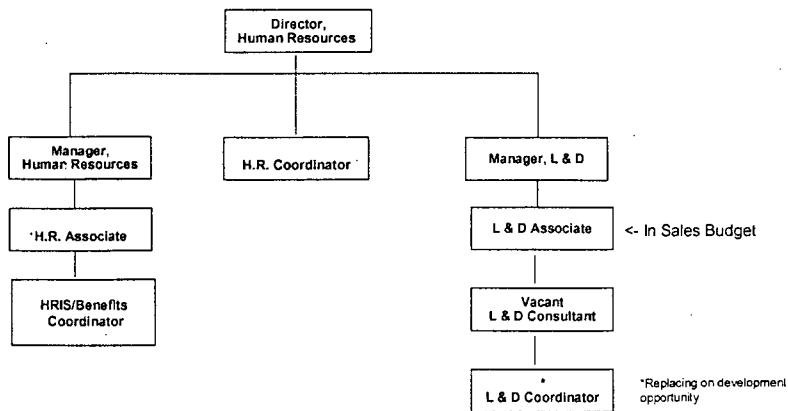
Total Human Resources: 9

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APPENDIX C
1ST SALES FORECAST vs. ACTUAL SALES

$ Mill.	1996	1997	1998	1999	2000	2001	2002	2003
Forecast Total Sales	-	6.0	21.0	38.5	57.5	83.0	109.5	126.0
Actual Total Sales	-	5.8	20.8	43.1	77.1	122.1	174.0	n/a

APPENDIX D
LEVEL ONE NRT QUESTIONNAIRE

Subjects: GI Science/█████████/Drug Interactions/CISS/Computers/Sales
Training/Pharmacovigilance & Medical Information/█ █████/GI Marketing
Overview/Sales Data
Facilitator (s): ████████
Venue: Holiday Inn Express, Bronte Room
Date: October 16 – October 20, 2000

In order to determine the effectiveness of the program in meeting your needs and interests, we need your input. Please give us your reactions, and make any comments or suggestions that will help us improve the program.

Instructions: Please circle the appropriate number after each statement and then add any comments.

		Strongly Disagree	Agree	Strongly Agree
1.	How do you rate the topic overall?	1 2 3 4 5 6 7 8 9 10		
2.	The topic was pertinent to your needs and interests	1 2 3 4 5 6 7·8 9 10		
3.	The materials presented are relevant to your job	1 2 3 4 5 6 7 8 9 10		
4.	How do you rate the facilitator(s) overall?	1 2 3 4 5 6 7 8 9 10		
5.	How do you rate the session overall?	1 2 3 4 5 6 7 8 9 10		
6.	This session will help me do my job better	1 2 3 4 5 6 7 8 9 10		
7.	This session will build my confidence	1 2 3 4 5 6 7 8 9 10		
8.	This session could be improved	1 2 3 4 5 6 7 8 9 10		
9.	This session could be more effective	1 2 3 4 5 6 7 8 9 10		
10.	The facilitator(s) clearly stated the session objectives	1 2 3 4 5 6 7 8 9 10		
11.	The facilitator(s) kept the session interesting	1 2 3 4 5 6 7 8 9 10		
12.	The facilitator(s) was an effective communicator	1 2 3 4 5 6 7 8 9 10		
13.	The facilitator(s) was well prepared	1 2 3 4 5 6 7 8 9 10		
14.	The facilitator(s) balanced presentation and discussion	1 2 3 4 5 6 7 8 9 10		
15.	The facilitator(s) had a helpful and friendly attitude	1 2 3 4 5 6 7 8 9 10		
16.	The facilitator(s) helped the group apply the material	1 2 3 4 5 6 7 8 9 10		
17.	How do you rate the meeting room overall?	1 2 3 4 5 6 7 8 9 10		
18.	The meeting room was comfortable and convenient	1 2 3 4 5 6 7 8 9 10		
19.	The food was suitable	1 2 3 4 5 6 7 8 9 10		
20.	What would have made the session more effective?	1 2 3 4 5 6 7 8 9 10		