

The Transfer of Training of Kaizen Improvement Skills
Using Relapse Prevention
by Supervisors in a Private-Sector Enterprise

by
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Approval Page

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Abstract

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This applied dissertation was designed to address the transfer of training problem, which costs organizations upwards of 90% of their training budget in paid for but unutilized skills. It had been generally assumed that employees would practice newly learned skills and knowledge once they returned to the workplace. Transfer is a serious problem, not only in the first world, but even more so in lesser-developed countries. The setting for study was in the West Indies (Caribbean) and attempted to improve the transfer rate in terms of the frequency, quality, and maintenance of newly learned skills, via a training intervention.

Thirty supervisors were targeted for training in an observable skill termed Kaizen or continuous improvement. Of this number, only 15 actually enrolled and 12 completed the two-day workshop. Five of the 12 trainees, randomly selected to form the treatment group, went on to participate in a six-hour session on Relapse Prevention (RP), the treatment intervention. RP consisted of goal setting, making a commitment to use the new skills, identifying workplace barriers and strategies to overcome them, and designing a self-management program. To the researcher's knowledge, this is the first time RP has been used in a non-American culture. Every time the trainees made an improvement in how their units approach their work, they were supposed to document it so that it could be counted.

After seven weeks, not one trainee had documented any improvements. As a consequence, the data collection strategy was changed and semistructured interview questions were drafted and administered to determine the problem. They were targeted at many of the trainees themselves, a few of their superiors, and a few key managers. The limited results indicated that the trainees were using their skills but not documenting that usage. Due to this constraint, the transfer quality and maintenance outcomes could not be measured, but the sampling did indicate that the treatment group outperformed the control group in frequency of use of the Kaizen skill. There are plausible alternative explanations for this difference that are not due to the treatment intervention.

Table of Contents

	Page
Chapter 1: Introduction	1
Description of Community	1
Writer's Work Setting	1
Writer's Role.....	2
Chapter 2: Study of the Problem	4
Problem Statement.....	4
Problem Description	4
Problem Documentation.....	6
Causative Analysis.....	11
Relationship of the Problem to the Literature	19
Chapter 3: Anticipated Outcomes and Evaluation Instruments	41
Goals.....	41
Expected Outcomes	42
Measurement of Outcomes	42
Chapter 4: Solution Strategy	44
Discussion and Evaluation of Solutions	44
Description of Selected Solutions.....	56
Report of Action Taken	61
Chapter 5: Results	66
Results	66
Discussion	85
Recommendations.....	101
Dissemination	109
References.....	111
 Appendixes	
A Previous Training Transfer Profile.....	120
B Trainee Transfer Perceptions	125
C Trainees' Improvement Opinions.....	129
D Transfer Performance Summary.....	132
E Kaizen Lesson Plan	136
F Continuous Improvement Event	138
G Relapse Prevention Lesson Plan.....	140
H Relapse Prevention Worksheet	142
I Trainee Self-Monitoring Report	145
J Doctoral Study Agreement	147
K Doctoral Applied Dissertation Study	150
L IRB Letter to Participants	156
M Workshop Quizzes	160

N	Dissertation Study Checklist for HR	167
O	Transfer Survey (Kaizen Trainees)	170
P	Kaizen Workshop Quiz Scores	175
Q	Workshop Evaluation by Participants (Kaizen)	178
R	Transfer Survey (Relapse Prevention Trainees)	182
S	Relapse Prevention Quiz Scores	185
T	Transfer Survey (Superiors).....	187
U	Transfer Survey (Key Managers)	191
V	Workshop Evaluation by Participants (RP)	196

Tables

1	Previous Training Transfer Rates	8
2	Assessment of Continuous Improvement Skills	10
3	Organizational Transfer Factors	13
4	Instructional Transfer Factors	14
5	Trainee Transfer Factors	15
6	Work Environment Transfer Factors.....	16
7	Stakeholder Transfer Factors	17
8	Intergroup Transfer Rate Comparison	68
9	Transfer Factors Impact From Trainee Interviews	72
10	Core Values, Kaizen and Transfer.....	96

Figures

1	A Model of the Transfer Process	20
2	Chain of Transfer Assumptions	24
3	The Transfer Matrix: Nine Possible Role/Time Combinations	45

Chapter 1: Introduction

Description of Community

The study was conducted in a former British colony in a Southern Caribbean island with a population of over one million. Now an independent democratic republic, it hosts a cosmopolitan representation of races and religions. The population is approximately 40% East Indian, 40% African, and 20% other and mixed. The Christian, Hindu, and Islamic faiths all have national holidays that are celebrated by all citizens. Historically, the Africans came to the island in the slave trade starting in the 1500s. The East Indians were brought in as indentured servants in the mid-1800s.

This island has one of the highest literacy rates (in excess of 95%) and the strongest economy in the West Indies, with a majority of its revenue derived from petrodollars. Poverty affects less than 5% of the population. The education system provides places for all primary and secondary students, while providing a network of two-year tertiary institutions and one university.

Writer's Work Setting

The researcher contracts work in a business school that comes under the university's Department of Social Sciences. The business school is functionally independent of the university, which created the unit because the traditional university programs were not responsive to the needs of the business community. The unit provides corporate training and consulting services to local and regional businesses and governmental ministries, in addition to graduate academic programs.

The mission of the researcher's unit is "to be the premier facilitator for the development of high performing organizations in [name of island] and the Caribbean region empowering people and organizations to optimize their performance capability

and international competitiveness.” The unit currently employs 50 staff members and six full-time and 20 part-time consultants and trainers. It offers two MBA programs, four other postgraduate programs, and diplomas and certificates in business, management, and organizational subjects.

The unit’s clients are interested in maximizing returns on their training dollars and, hence, look for maximum transfer of knowledge and skills from the classroom to the workplace. Because the employer has insufficient staff to conduct research for the applied dissertation, a client volunteered to host the study.

The client is a privatized utility employing 500 staff of which approximately 80 are supervisors. Their mission is “to exceed our customers’ expectations for quality energy in a safe and environmentally responsible manner, creating value for our customers, employees and shareholders.” The client is concerned that transfer rates are very poor and, therefore, is interested in the results of this study.

Writer’s Role

Since the mid-‘90s, the researcher has worked as a *Resident Consultant/Trainer*, reporting to the Executive Director of the unit for assignments in these areas. His duties include the customized design and delivery of workshops for organizations in supervisory and management training, lecturing in the MBA and other academic programs, and designing and conducting management consulting projects related to areas of his expertise. Currently, he is helping the unit to integrate technology and acquire a distance-education capability and improve its ability to provide transfer-enhancing strategies and infrastructure to its clients.

The researcher coordinated the research project with the client’s human resource division. The project involved the training of supervisors and a treatment intervention for

the experimental group, with data collection before, during, and after training. The multisourced data collection, via a number of different techniques, was the most critical aspect of the researcher's time and interactions with the client.

Chapter 2: Study of the Problem

Problem Statement

The problem to be solved in this applied dissertation was that skills learned in training are not adequately reflected in workplace behavior to make a significant positive impact on performance.

Problem Description

In the 21st century, the turbulent global economy and quickly changing business landscape primarily are driven by information technology, and knowledge has become a primary organizational asset (Alley, 1999). This intellectual capital takes two forms: structural capital and human capital. *Structural intellectual capital* includes all the information assets owned by an enterprise, such as databases, patents, and proprietary technologies and processes. *Human intellectual capital*, on the other hand, consists of competencies of an enterprise's management and staff, and is used to design, produce, and deliver ever more innovative and sophisticated products and services (Brainmarket, 2002). Employers want to ensure that all of their investments in human capital provide maximum returns. Unfortunately, the rate of transfer of skills learned in training that should be practiced back in the workplace has been disappointing for most organizations (Baldwin & Ford, 1988; Broad & Newstrom, 1992; Georgenson, 1982).

“Transfer of training” is an area of focus in the field of *Instructional Technology* (ITDE). Anglin (1995) defines this field as: “The systemic and systematic application of strategies and techniques derived from behavior and physical science concepts and other knowledge to the solution of instructional problems” (p.7). When there is widespread failure of trainees to use, in the workplace, what they have been taught in the classroom, then it becomes an instructional problem that must be addressed. Dick and Carey (1996)

state that instruction should be designed to overcome this problem, and Gagne, Briggs, and Wager (1992) have included transfer as one of their nine critical events of instruction that should be addressed in each lesson.

Over the past six years, the researcher's employer has provided extensive organizational workshops on general management topics (as opposed to technical or industry-related topics) to this client. Senior management has become increasingly disillusioned with the results, to the point that they have stated that they "don't want to send any more supervisors on training. We just want them to start using what they have already learned." This problem exists in most management-training programs across the entire organization, regardless of the topic.

It appears that problems with transfer sometimes start with the training itself. Many training vendors do not use systematic instructional-design methods, resulting in poorly designed corporate workshops. Many courses have vague objectives or no objectives. Much of the delivery involves lecturing, with very little time to practice new behaviors (Reigeluth, 1983).

Trainees are not oriented by their superiors before training or debriefed after it. There are no explicit plans to integrate the new skills into the trainees' jobs. Except in isolated and rare instances, the total transfer burden is on the trainee. This effort is often attempted in an unsupportive, if not hostile, work environment. In many instances, either there are no direct incentives to encourage new behaviors, or the existing incentives are outdated (Milheim, 1994). Typically, the superior, unaware of the training content, either cannot support the trainee or puts the trainee on notice to forget about those things that the trainee learned in class—and to follow the traditional ways of doing tasks. In this environment, the exhibition of new skills is minimal, as the risk is great and the reward is

little or nonexistent. From the trainee's point of view, why should they make great efforts to establish new habits, when they will go unnoticed at best, and punished at worst?

There have been few attempts by the client to address this problem, as they, until recently, have been only semiconsciously aware of it. Traditionally, transfer was assumed to be an automatic process. The assumption was that, if staff learned a better, faster, or less stressful way to do their job, they certainly would want to practice it. Low rates of transfer appear to have been attributed as a training vendor fault, in the sense that the rate was almost totally dependent on the instructor's ability to "teach for transfer."

Too much emphasis was placed on the immediate (emotional) reaction of trainees after training, as recorded on "evaluation" forms, which research indicates has little correlation to the actual amount of learning that took place (Alliger & Janak, 1989). If the client's staff did not like a particular vendor, the client gave the vendor no additional work and sought a "better" trainer. No scientific, posttraining evaluation of training was conducted to determine actual transfer rates or sources of transfer problems. Sometimes the client blamed the trainees, who may lack in either ability or motivation. In summary, the client never seriously addressed the transfer problem.

Problem Documentation

While the transfer-of-training problem has been well documented in the literature, this section will examine client-specific evidence in terms of expression and magnitude of the transfer problem. The first piece of evidence comes from conversations and review meetings with the client. As a management consultant and facilitator, the researcher has been told by HR and senior management clients, in about four out of five reviews of interventions over the past year, that employees are not practicing most of what they learn in their workshops, courses, or programs.

Three instruments were designed and administered to collect evidence of the existence, nature, and severity of the problem. Several sections of the instruments administered to both superiors and subordinates were identical. This similarity was intended to highlight different perspectives on the transfer problem due to the subjects' position in the organization.

The superiors of the trainees (subjects) who participated in the study were given the *Previous Training Transfer Profile* instrument (see Appendix A) in a briefing session about the study. Those who were not there were sent a copy via e-mail along with an explanation of the study. The *Profile*, in its three major sections, sought to establish evidence of a transfer problem in general, to provide the baseline quality-and-frequency data for the new skill the subject's would be taught in the training intervention (continuous improvement skills), and to solicit opinions about the general causes of transfer problems in their departments and about transfer facilitators.

Table 1, *Previous Training Transfer Rates*, was based on a course entitled *Core Values Training*. It was fortunate that everyone in the firm took the same course, in either 2000 or 2001, which had six target areas: (1) creative thinking, (2) problem solving, (3) interpersonal communications, (4) self-discipline, (5) self-motivation and empowerment, and (6) relationship skills. Superiors rated their trainees in terms of frequency and quality of the new behaviors. The researcher defines a transfer "problem" as an overall mean, in either or both of frequency or quality, below 2.00 (i.e., less than 50%).

As is evident in Table 1, the mean frequency of all six skill categories is 2.85, which translates into a 71% usage-on-the-job rate. Stated negatively, the trainees are not using their new skills 29%, or almost a third, of the time. There is clearly room for improvement in this area. In terms of quality, all means were lower (less satisfactory)

Table 1

Previous Training Transfer Rates

Training Objective	Frequency		Quality	
	M	SD	M	SD
1. Creative Thinking	2.52	0.59	2.28	0.74
2. Problem Solving	2.96	0.98	2.48	0.65
3. Interpersonal				
Communication	2.68	0.85	2.16	0.80
4. Self-Discipline	3.12	0.78	2.60	0.87
5. Self-Motivation	3.00	0.65	2.28	0.61
6. Relationship Skills	2.80	0.76	2.40	0.76
Mean	2.85	—	2.37	—

Note. “Frequency” means were based on a five-point scale (0 = *does not do it*, 1 = *sometimes*, 2 = *half the time*, 3 = *much of the time*, 4 = *always does it*). “Quality” means were based on a five-point scale (0 = *does everything below standard*, 1 = *partially below standard*, 2 = *meets the standard*, 3 = *above the standard*, 4 = *model behavior for others to follow*).

than frequency means. Translated into a percentage level of quality, the mean of 2.37 for all six skill categories is 59%, which is just above minimum standards. In other words, there is a 41% area for improvement on how well these core value skills are executed. In summary, the superiors perceive that new skills are being used around two-thirds of the time and the quality of transfer is lower than is desirable in five of six areas.

The next section of the *Profile* for superiors, and the equivalent section in the *Trainee Transfer Perceptions* (see Appendix B) for trainees, asked both parties to use the

same five-point frequency and quality scales on “continuous improvement” objectives, which are the same as the ones used in the intervention training workshop (Kaizen), establishing a baseline for these two constructs. The intent was to see whether a problem existed in transferring the skills to the workplace in terms of both frequency of use and quality of skill performance. Table 2, *Assessment of Continuous Improvement Skills*, provides the results. The five objectives were:

1. They see making improvement efforts on *how* they do activities (procedures, techniques, and tools) as part of their job.
2. On their own, they are able to identify areas that need to be improved (that they can do something about at their authority level).
3. On their own, they come up with good solutions to problems or make improvements to an existing system.
4. They are able to work well with others (teammates, coworkers, superiors, people from other departments, etc.) to help in either planning, implementing, or accepting improvements.
5. They document or create “job aids” (e.g., checklists, memos, signs, lists, etc.) to help others remember or practice the new method, or be aware of the new situation.

Table 2 shows the trainees’ self-report was consistently higher than their superior’s opinion of their skills. Using a criteria of 2.50, the areas where the superiors felt trainees’ performance was below minimum were the following:

1. Creating solutions (frequency and quality)
2. Creating job aids (frequency and quality)
3. Seeing improvement efforts as part of the job (frequency and quality)

Table 2

Assessment of Continuous Improvement Skills

Training Objective	Frequency				Quality			
	Superior		Trainee		Superior		Trainee	
	M	SD	M	SD	M	SD	M	SD
1. See it as part of their job	2.25	0.96	3.10	0.74	2.25	0.50	2.82	0.63
2. Can identify problems	2.50	1.00	3.10	0.88	2.50	0.58	2.80	0.42
3. Can create solutions	2.00	0.82	2.90	0.88	1.75	0.50	2.90	0.88
4. Can collaborate	2.50	1.29	3.30	0.68	2.50	1.00	3.00	0.82
5. Can create job aids	1.25	0.50	3.20	0.63	1.25	0.50	3.00	0.67

Note. “Frequency” means were based on a five-point scale (0 = *does not do it*, 4 = *always does it*).

“Quality” means were based on a five-point scale (0 = *does everything below standard*, 4 = *model behavior for others to follow*).

Clearly, the largest gap between superiors and trainees was in their perception of the last two points. On average, trainees rated themselves around two full points higher than their superiors on these items. In other words, trainees feel they achieve these goals much of the time and above standard, while superiors see it as occasional behavior and below standard.

Data were also collected on the trainees’ level of self-efficacy in an instrument entitled *Trainees’ Improvement Opinions* (see Appendix C), which is a domain-specific, self-efficacy instrument designed around objectives of the intervention training session. The data would have been used later to attempt to measure the amount of variation on the

outcome variable (performance) that self-efficacy accounts for, as this construct could turn out to be much more powerful in its influence than the treatment itself.

Unfortunately, these self-reports appeared inflated with a mean of 8.54 (a high confidence level) on a scale of 10. Because most scores were above 5, they could not be reliably used to differentiate the trainees into the “high” (mean greater than 5) or “low” (mean less than 5) categories of self-efficacy.

Evidence provided and described above indicates that while trainees may not perceive a problem in implementation of training skills, superiors do. The next section will look at possible causes of poor transfer of training.

Causative Analysis

In order to locally determine and rank the causes of poor transfer as perceived by the stakeholders, an identical “Transfer Factor” section was placed into both the superiors’ and trainees’ instruments mentioned earlier. This section was designed after reviewing different taxonomies of causal factors that had been the basis of numerous studies and meta-analyses (Baldwin & Ford, 1988; Baumgartel, Reynolds, & Pathan, 1984; Brief & Hollenbeck, 1985; Broad & Newstrom, 1992; Ford, Quinones, Sego & Sorra, 1992; Huczynski & Lewis, 1979; Kirkpatrick, 1976; Noe, 1986; Peters & O’Connor, 1980; Rouiller & Goldstein, 1993; Schneider & Reichers, 1983; Tziner, Haccoun, & Kadish, 1991; Vandenput, 1973; Xiao, 1996). Given the diverse and numerous factors that influence transfer, the researcher clustered them into five major areas such that they represented commonly reoccurring themes in the literature. An effort was made to limit this section to one page so as not to overwhelm the respondent. Each number in parentheses below indicates the number of line items (factors) each grouping contains.

1. The “Organizational” (5) area include distal, enterprise-wide environmental factors.
2. The “Instructional” (8) area includes factors related to the design, delivery, and administration of training.
3. The “Trainee” (8) area identifies personal characteristics that have been shown to impact transfer rates.
4. The “Work Environment” (9) area includes proximal, nonhuman, environmental factors in the trainee’s immediate work area.
5. The “Stakeholders” (8) area identifies individuals who interact with and therefore influence the trainee.

The 38 factors were clustered into five major themes (identified above). These five areas were identified in the literature as possible causes of poor transfer of training. A six-point rating scale was designed to determine the perception of their impact on transfer, ranging from “very negative influence” to “very positive influence.” The same factor may be negative in one unit and positive in another, such as the supportiveness or hostility of the superior. Tables 3 through 7 compare superiors’ and trainees’ perceptions of facilitators and inhibitors of transfer.

As may be expected, superiors and trainees have a different perspective on transfer factors. In general, the trainees noted many more items in “positive” to “very positive” categories than the superiors, and the superiors noted more items that had a “very negative influence.” While the trainees tended to view the factors more from a personal viewpoint, the superiors had a more managerial (organizational) viewpoint of the transfer dynamics. Next, the most extreme positive and negative factors will be

identified.

Table 3

Organizational Transfer Factors

Transfer Factor	Superior		Trainee	
	M	SD	M	SD
Organization-wide work culture	3.75	1.26	3.90	1.10
Organizational stability (change/growth/mergers)	4.00	0.82	3.60	0.97
Clarity of strategic direction	4.00	0.00	3.10	1.60
Support of top management team (policies, leadership, monitoring, etc.)	3.75	1.89	3.70	1.25
Appraisal system (for individuals)	3.50	1.29	3.20	1.55

Note. A six-point scale was employed with five points used for generating the mean (1 = *very negative influence*, 3.0 = *no influence* (neutral), 5 = *very positive influence*), and one rating for “do not know or does not apply in our situation.”

The superiors identified the following eight factors as currently having a “very positive” (rating means between 4.00 to 5.00) impact on transfer at their organization.

1. Opportunities to use new skill
2. Supervisor modeling of new behavior
3. Support of immediate supervisor
4. Support of coworkers/teammates
5. Incentives/praise for new skill
6. Quality of job description/expectations
7. Clarity of strategic direction

8. Organizational stability

Table 4

Instructional Transfer Factors

Transfer Factor	Superior		Trainee	
	M	SD	M	SD
Class times and location	2.75	0.96	3.00	1.00
Instructional performance objectives	3.50	0.58	4.00	0.94
Quality and scope of course content	3.00	2.00	4.33	0.50
Level of practice and feedback in classroom	2.50	1.92	4.33	0.50
Quality of instructional design	3.00	2.00	4.20	0.42
Delivery of instruction	3.25	2.22	4.20	0.63
Trainee assessment in the classroom	2.25	1.71	3.44	1.60
Interruptions/missed sessions during training	1.00	1.29	2.44	0.88

Note. A six-point scale was employed with five points used for generating the mean (1 = *very negative influence*, 3.0 = *no influence* (neutral), 5 = *very positive influence*), and one rating for “do not know or does not apply in our situation.”

In contrast, the trainees had 12 factors in the “very positive” range, to wit:

1. Trainee potential to perform new skill
2. Discipline of trainee
3. Support of immediate supervisor
4. Quality and scope of course content
5. Level of practice and feedback in classroom
6. Quality of instructional design

7. Delivery of instruction
8. Instructional performance objectives
9. Level of trainee satisfaction with the new behavior
10. Quality of workflow processes
11. Supervisor awareness of training content
12. Support of coworkers/teammates

Table 5

Trainee Transfer Factors

Transfer Factor	Superior		Trainee	
	M	SD	M	SD
Trainee's level of confidence toward the new skill	3.50	1.29	3.70	1.42
Trainee's feeling about relevance of the new skill	2.50	1.29	4.20	0.92
Trainee's potential to perform new skill	3.50	0.58	4.50	0.71
Discipline of trainee	3.00	0.82	4.50	0.53
Level of trainee satisfaction with the new behavior	3.00	0.82	4.00	0.47
Personal (nonwork) problems of the trainee	2.25	1.26	3.40	0.84
Level of retention (memory) of learning by trainee	2.50	1.29	3.90	0.88
Unresolved work issues with the trainee	2.00	0.82	2.60	1.17

Note. A six-point scale was employed with five points used for generating the mean (1 = *very negative influence*, 3.0 = *no influence* (neutral), 5 = *very positive influence*), and one rating for “do not know or does not apply in our situation.”

Both superiors and trainees agreed that the following two factors were on the bottom of their list, meaning they had the lowest ratings.

1. Interruptions/missed sessions during training
2. Unresolved work issues with the trainees

Table 6

Work Environment Transfer Factors

Transfer Factor	Superior		Trainee	
	M	SD	M	SD
Quality of job procedures	3.50	1.73	3.78	0.97
Quality of job description/expectations	4.00	0.82	3.90	0.88
Quality of workflow process(es)	3.75	1.26	4.00	0.67
Quantity of trainee's workload	3.00	0.82	3.30	0.95
Consequences (+ or -) for new skill	3.00	1.16	3.78	0.44
Incentives/praise for new skill	4.25	0.50	3.40	1.58
Opportunities to use new skill	4.50	0.58	4.00	0.94
Departmental performance standards	4.00	0.82	3.70	1.25
Resources available to use new skill	3.75	1.27	3.80	0.79

Note. A six-point scale was employed with five points used for generating the mean (1 = *very negative influence*, 3.0 = *no influence* (neutral), 5 = *very positive influence*), and one rating for “do not know or does not apply in our situation.”

As indicated in the foregoing list, superiors and trainees were in complete agreement on the most negative factors. The researcher has directly observed the category “interruptions/missed sessions during training” while conducting training sessions with this client in the past. It appears that the “savings” made by having training done on site

Table 7

Stakeholder Transfer Factors

Transfer Factor	Superior		Trainee	
	M	SD	M	SD
Supervisor awareness of training content	3.50	2.38	4.00	0.67
Supervisor input into training content	3.50	2.38	3.80	0.92
Support of immediate supervisor	4.50	0.58	4.40	0.52
Supervisor modeling of new behavior	4.50	0.58	3.70	0.95
Content awareness by coworkers	3.25	2.22	3.90	0.74
Support of coworkers/teammates	4.50	0.58	4.00	0.82
Pretraining support by trainer	3.75	2.50	2.90	1.60
Posttraining support by trainer	3.75	2.50	3.60	1.51

Note. A six-point scale was employed with five points used for generating the mean (1 = *very negative influence*, 3.0 = *no influence* (neutral), 5 = *very positive influence*), and one rating for “do not know or does not apply in our situation.”

are not realized, as superiors continually pull their subordinates out of sessions to attend meetings or deal with urgent situations. In the positive category, there is agreement between the two groups on only two factors (i.e., “support of immediate supervisor” and “support of coworkers/teammates”).

The superiors identified some of the critical factors that make transfer successful, especially their personal involvement in fostering transfer (e.g., “support of immediate supervisor” and “supervisor modeling of new behavior”). In contrast to the trainees, superiors did not mention any instructional variables as having a very positive impact on

transfer. While the superiors noted strategic factors (e.g., “clarity or strategic direction” and “organizational stability”), this category did not hold much importance for trainees. In looked at areas of potential causation in this company, the researcher reviewed the factors for patterns in the five areas. Superiors and trainees did not rate any “organizational” factors 3.00 or below on a five-point scale. In the “instructional” area, superiors rated 6 of 8 items at 3.00 or below, although trainees only rated two items at that level. In the “trainee” area, superiors again rated 6 of 8 items at 3.00 or below while trainees only rated 1 item at that level. Only two items were rated at 3.00 by superiors in the “work environment” area and none were rated that low by trainees in that area. The “stakeholder” area had one item rated below 3.00 by the trainees and none by the superiors. Based on these results, it appears that the areas identified within the organization as key in low rates of training transfer focus on instructional and trainee factors.

Given the superiors perspective, in that they are probably in the best position to observe trainee behavior, and the tendency for trainees to wax positive on self-reports, some of the items identified by the researcher as targets for potential solutions included instructional design, practice and feedback, assessment, training administration, trainee discipline, and relevance and retention of learning. The only other two other low scoring areas, as perceived by trainees, were personal problems and unresolved issues at work. Because of the limited scope of any experimental intervention, not all causative factors can be addressed. While improved instructional design and delivery are necessary, due to the nature of the gestalt of the organizational environment, it appears that, in the short run, solutions could be targeted at the trainees while longer term system changes are put in place. In the next section, the origins and relationships of these transfer variables, as

reflected in the literature, are outlined.

Relationship of the Problem to the Literature

Definitions and background. The “transfer of training” construct has been defined in many ways by many authors and researchers. A widely used working definition by Baldwin and Ford (1988) is: “the degree to which trainees effectively apply the knowledge, skills, and attitudes gained in a training context to the job...and [are] maintained over a period of time” (p. 63). Ottoson (1997) warns that we should not limit transfer to application of knowledge, skills, or attitudes only, but also consider new ideas or innovations as a product of transfer. Transfer has two essential components: generalization (remembering to use knowledge in a context that differs from where learning occurred) and maintenance (internalizing the behavior over time). Figure 1 depicts the relationships of the major transfer variables.

In 1996, Garavaglia added a “transfer performance measure” box, after Baldwin-Ford’s “conditions of transfer” box, from which a feedback loop operates, that allows the system detect and correct deficiencies in the earlier stages. Ford, Smith, Weissbein, Gully, and Salas (1998) enriched the Baldwin-Ford model by expanding “training outputs” into three distinct categories that support transfer: knowledge, final training performance, and self-efficacy. Yamnill and McLean (2001) provide an updated on Baldwin-Ford model’s “training inputs:” trainee characteristics, training design, and work (organizational) environment. They integrate the latest findings of all theories supporting transfer of training.

The concept of “transfer” has a wider meaning in educational psychology--a phenomenon which can exist solely within the boundaries of a classroom. In this sense, transfer is the basis of all learning and, therefore, it is often referred to as “transfer of

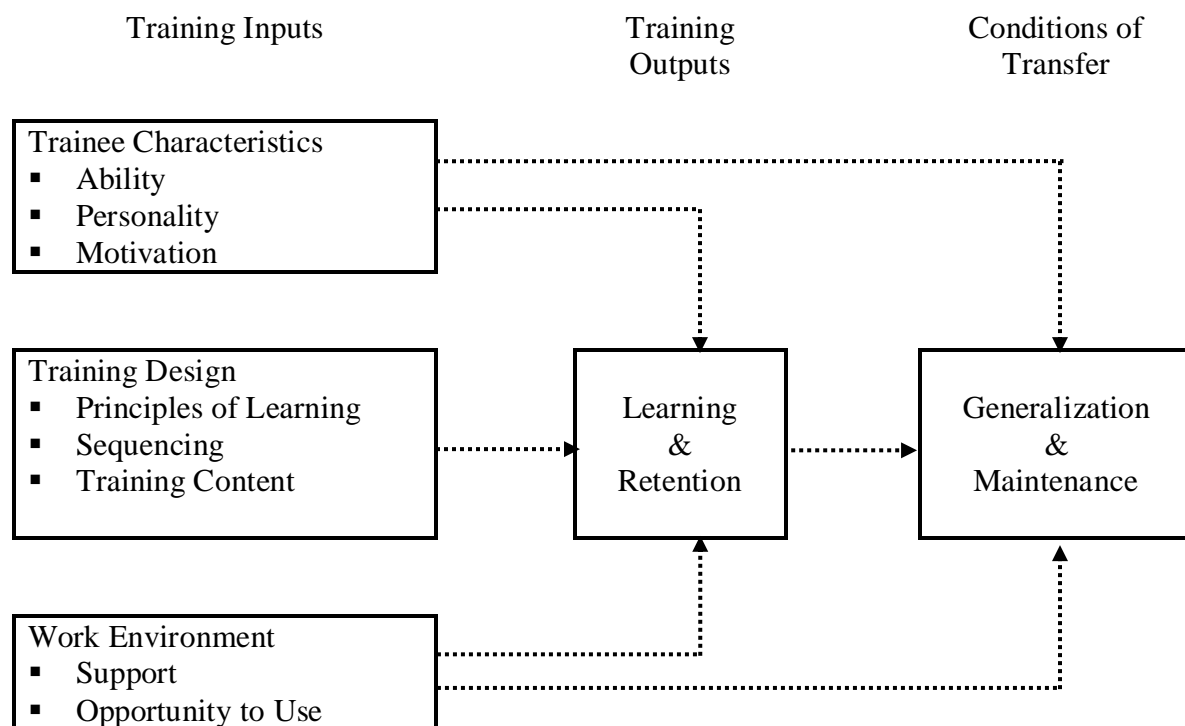


Figure 1. A model of the transfer process.

From “Transfer of training: A review and directions for future research,” by

T. T. Baldwin and J. K. Ford, 1988, *Personnel Psychology*, 41, p. 65.

learning” (instead of training). In order to perform algebra, one must transfer simpler skills, such as addition, multiplication, division, etc., which is an example of vertical transfer (Klausmeier & Davis, 1969). An example of lateral (horizontal) transfer is found in learning concepts, where one must be able to transfer attributes among a class of objects--for instance, to distinguish a dog from a cow (Klausmeier & Davis, 1969).

The noun “transfer” employs different adjectives to reflect its many qualitative states (Klausmeier & Davis, 1969). “Positive transfer” is when the learning experience promotes the effective use of what is learned. “Negative transfer” inhibits or blocks subsequent usage. “Near transfer” means that the learning context and the performance context are very similar, making it easy for (cueing) the learner to recognize (generalize)

an opportunity for application of knowledge or skill. In “far transfer,” the dissimilarity of contexts or environments makes it difficult for most people to see the underlying deeper conceptual connections. All creative thinking depends on far transfer (in this case, also called “figural transfer”). Far transfer is critically important in today’s world, where ill-structured problems have few or no procedural solutions and, hence, rely heavily on creativity (Haskell, 1998). Other types of this multifaceted construct are “specific,” “nonspecific,” and “literal transfer” (Klausmeier & Davis, 1969).

The literature indicates that, until as recently as the early ‘80s, organizations presumed that transfer of training was essentially an automatic process and therefore never actively measured it. As with most issues, until the economic cost is analyzed, it may not receive the managerial attention it deserves. A landmark study by Georgenson (1982) determined that transfer rates averaged around 10% for American businesses employing corporate training. Translated into economic terms, it equates to wasting about 90% of the direct training budget. In addition, the indirect losses of the worker being away from the worksite, or being replaced by casual or contracted labor, significantly add to the total cost picture. In the early ‘80s, training expenditures in the USA were approximately \$100 billion (Kelly, 1982). In 1990, McKenna estimated that America spent about \$210 billion in direct training costs, much of it lost to inadequate transfer. And in 1991 (Anthony & Norton), it was estimated that corporate education would represent approximately 25% of America’s GNP by the turn of the century. In a knowledge-based economy, where competencies represent a critical competitive advantage, this loss is intolerable.

Models of transfer of training. The causes of poor transfer of training provide an excellent portal for examining organizational problems as they touch a wide cross-section

of organizational behavior. Kurt Lewin's Field Theory (1935) provided a model for viewing forces arrayed for and against an initiative that would cause significant change. He implied that it is almost mathematical, in that the sum of the vectors (for and against) will determine the outcome. This complexity of causation in terms of the number of variables--both inhibitors and facilitators--makes transfer a difficult problem to conceptualize and, therefore, address. In other words, if one could "solve" the transfer problem, a majority of organizational problems would be minimized or cease to exist. Several models have been developed to try to understand the transfer phenomena.

Kirkpatrick (1976) provided a four-step framework for pinpointing where transfer problems can occur, identifying areas where management's faulty assumptions have kept them from being acutely aware of this problem. His model posited a fragile chain of assumptions, any of which, when violated, result in ultimate nonperformance. Baldwin and Ford (1988) elaborated on part of this chain in their model of the transfer process. Many other researchers have attempted to assemble models of causal structures by employing correlation path analysis, which examines how variables influence each other and to what degree. One of these models can be found in Wood and Bandura's (1989) work on self-efficacy's impact on performance.

The logic of the chained assumptions in Kirkpatrick's and Baldwin and Ford's models can be summarized as:

1. The trainee must have the ability and motivation to learn the new skill (trainability).
2. The new skill must first be learned before it can be practiced, although many times the instructional design or delivery is faulty.
3. Even if a new skill is learned in the classroom, the trainee must remember

- (retain) what they learned in order to practice it at the workplace.
4. Even if one wants to practice the new skill, there may not be an opportunity to do so.
 5. Even if one acquires and remembers a skill and has the opportunity to practice it, they may not generalize it to a given work situation where they could and should apply it--that is, in a far-transfer situation (where classroom and workplace contexts appear very different on the surface).
 6. Even if generalization is realized, the enabling support system may not be in place (via stakeholders and the work environment).
 7. Even if support is present, it may not be maintained over time when the novelty wears off or environmental factors distract attention or resources, often causing a relapse to old behaviors.
 8. Even if the behavior is generalized and maintained, it may have little or no impact on the organizational problem that the training was supposed to address in the first place--that is, it could have been a systems problem, not a skill-deficiency problem.

Figure 2 diagrams the sequence and assumptions of the transfer chain of events.

While Kirkpatrick provides a useful perspective, it is not without its problems. Noe and Schmitt (1986) found that only the link between Levels 3 and 4 (see list below) were significant. There was no support for linkages between Levels 1, 2, 3. In 1989, 30 years after the model was first published, Alliger and Janak critically examined it by attempting to establish the strength of correlations between each of the four levels (italicized words are Kirkpatrick's designations):

1. Trainees' immediate (emotional) *reaction* to the workshop/course

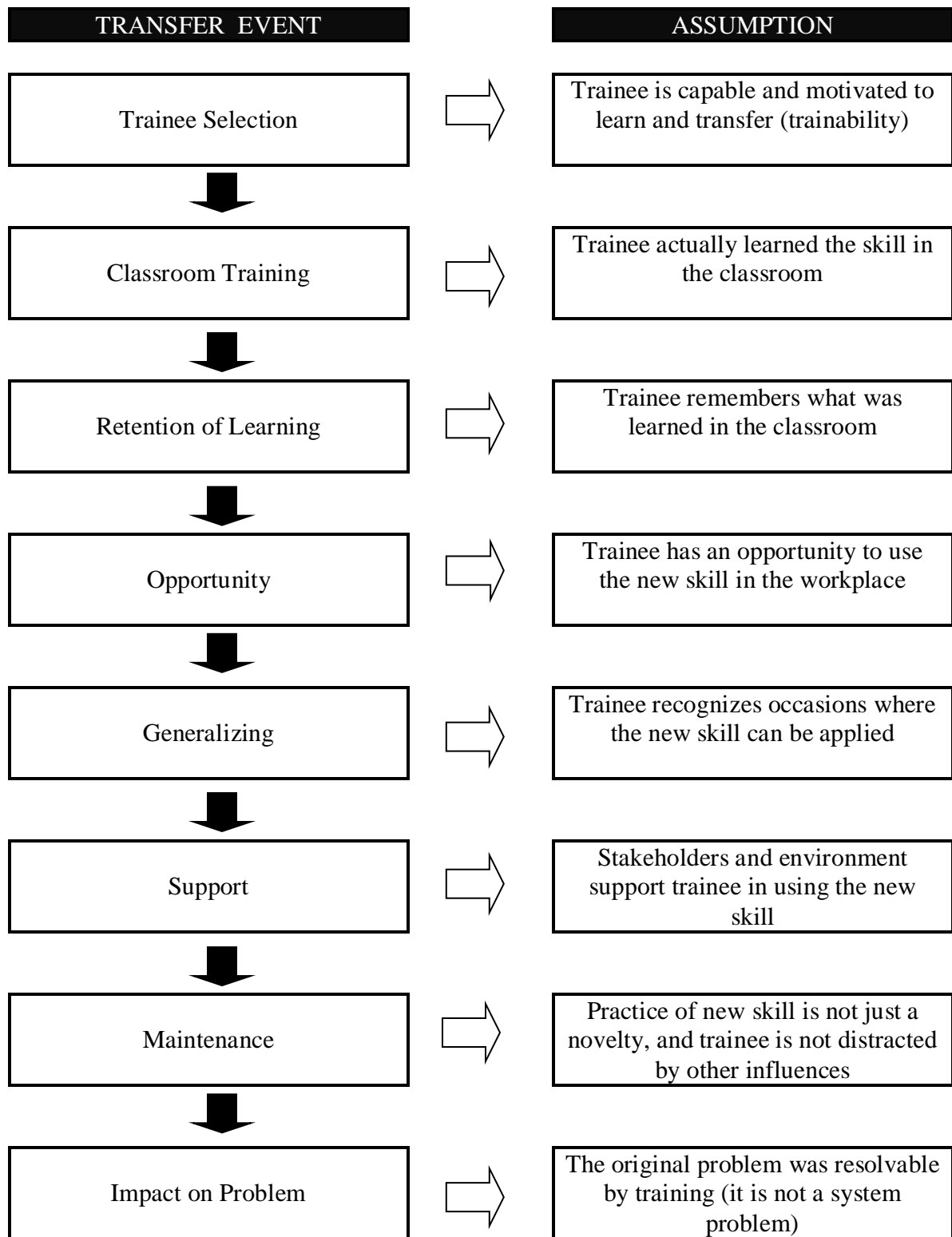


Figure 2. Chain of transfer assumptions.

2. Actual classroom *learning* that took place (via testing)

3. *Behavior changes on the job*

4. *Organizational results*

Unfortunately, the study results were inconclusive, but the model still serves as a heuristic device, which was later used by Barnard, Veldhuis, and van Rooij (2001). They created a detailed transfer evaluation and improvement model that is epitomized in their matrix (p. 275), which pits the actors (trainer, trainee, and manager) against phases (input, throughput, output) to generate areas of concern.

Another useful model comes from Broad and Newstrom's landmark book on transfer of training (1992). It divided transfer events temporally--that is, what should be (or is not) happening before, during, and after training. It goes on to specify the roles of the three key stakeholders: the trainer, the trainee, and the trainee's superior. This 3 x 3 matrix (see Figure 3) provides a comprehensive framework for conceptualizing transfer problem areas and their solutions, thereby making it both descriptive and prescriptive.

The problem areas raised in the previous assumption chains will now be reviewed in more detail. Chains depend on linkages or connections. A disconnected set of links is not a chain. Connection is what is at the heart of the transfer problem: the pieces are there, but they are not consciously and deliberately integrated or orchestrated. There must be a partnership between the main stakeholders (Georgenson, 1982), and an integration of system infrastructure (Broad & Newstrom, 1992) that facilitates stakeholder need satisfaction.

Brinkerhoff and Montesino (1995) suggested that the relationship of all the pieces needs to be re-examined. They stressed that the transfer stakeholders (trainee, trainer, and superior) do not see any overlap in transfer functions. That is, for example, the trainee's supervisor may think that anything that is training-related comes under the jurisdiction of

the trainer and that the supervisor therefore has no transfer role to play. The trainer may see his or her worker as finished when training is completed.

Problems related to training. Since training is a critical precondition of transfer, it will be discussed first. Possibly the most obvious source of low transfer rates is that, if the skill is not learned in the classroom, it cannot be practiced in the workplace. Poor instructional design has been considered the main cause of the problem (Berardinelli, Burrow, & Dillon-Jones, 1995; Dick & Carey, 1996; Baldwin & Ford, 1988; Kahnweiler & May, 2000; Smith & Ragan, 1999).

Instructional design textbooks indicate or imply that most instruction is not systematically designed or evaluated for effectiveness (Dick & Carey, 1996; Reigeluth, 1983; Smith & Ragan, 1999). The researcher gave a general instructional design quiz to his colleagues, most of whom hold graduate degrees and have been teaching over 10 years, and none of them scored over 20% correct. There is a widespread assumption that, if one is a subject-matter expert, one can automatically design and deliver instruction. Specifically, trainers are unaware of the systematic instructional-design process, and thus they create courses without objectives or use vague objectives. Lee and Pucel (1998) suggested that if trainees feel an objective is important that they are more likely to transfer those skills, once learned. This cannot take place if objectives are not explicit or communicated. Poor instructional design skills are also evidenced in the use one instructional strategy for all types of learning outcomes (e.g., lecturing), fail to ensure that the conditions for learning for a particular type of learning outcome are present (Smith & Ragan, 1999), teach at a rule or procedural level instead of general and deeper principles (McGehee & Thayer, 1961), fail to give multiple examples and nonexamples of concepts in a variety of contexts (Ellis, 1965), provide inadequate practice time and

poor timing and content of feedback, or employ inadequate test designs (Smith & Ragan, 1999). Most of the time, learning materials are copied from textbook chapters and magazine articles to produce a training manual instead of customizing these materials to specific industries or the local Caribbean culture. Instructors do not understand how to “process” the learning after exercises and activities, falsely assuming that, when someone is exposed to a learning event, they automatically internalize the content.

Few learning environments are deliberately set up to replicate the performance (workplace) environment (Zemke & Gunkler, 1985). The theory of identical elements, first proposed by Thorndike and Woodworth in 1901, theorized that the more these two contexts are similar, the easier it will be to transfer--that is, the more cues will be available to prompt the trainee in the performance environment. This contention was later supported in empirical research (Gagne, Baker, & Foster, 1950). While this approach may work at the task level for employees, it becomes increasingly more difficult to apply it to higher levels of management, where skills are more abstract.

Even if instruction is designed properly and participants carefully selected, poor delivery could also be a significant problem, as many trainers are lacking in these techniques as cited in the literature (Berardinelli et al., 1995; Baldwin & Ford, 1988; Kahnweiler & May, 2000). The timing and location of training can also serve as an obstacle (Quick, 1991).

Many times during instruction, the trainer does not take the opportunity to provide additional or supportive guidance on using the skills back on the job (Baldwin & Ford, 1988; Gist, Baveita, & Stevens, 1990; Gist, Stevens, & Baveita, 1991). It is often up to the students to translate theoretical concepts and models into procedures and practice at the worksite. While bright students may be able to do this, it places too great of a

cognitive load on mediocre and slower students, who will have great difficulty if they can do it all.

Even if one does learn a skill in the classroom, gradual memory deterioration can be significant, especially in the face of little or nonuse. Newstrom (1986) estimates that knowledge retention rates right after training are about 40%, fall to 25% within a half-year, and fall to 15% after one year.

The whole foregoing discussion on training is based on the assumption that the problem to be solved is addressable by improved knowledge, skills, or attitudes. The performance technology literature suggests that 80% of all organizational problems are systems-based and, therefore, are not amenable to competency-based solutions (Clark, 1994; Spitzer, 1990).

Problems related to the trainee. In some instances, instruction can be adequate but there can be a problem with the trainee's level of ability, motivation, or self-efficacy (Berardinelli et al., 1995; Ford & Baldwin, 1988; Gist, Stevens, & Baveita, 1991; Porter & Lawler, 1968; Taylor, 2000). Hunter's (1986) study supported the cognitive ability-performance linkage. Noe and Wilk (1993), while measuring many variables, stated that "Motivation to learn was the only attitudinal variable to have a consistent, significant, positive, influence on...development activity" (p. 301), an antecedent to transfer. The literature contains many other trainee-specific constructs that are also believed to be predictors or mediators of transfer.

While different trainee constructs may affect outcomes differently, the most important is trainability. Trainability (Noe, 1986; Porter & Lawler, 1968) is the combined impact: of ability to comprehend and apply learned skills (at least in the classroom); motivation, both intrinsic and extrinsic; and the trainee's perception of the

immediate work environment. Motivation has been defined as having three components: energizing, directing, and maintaining interest and commitment (Steers & Porter, 1975). The work environment, on the other hand, is a collection of all social and technical factors that support or inhibit transfer (discussed in detail later). To the extent that trainability subconstructs are strong and aligned, learning and transfer should be exhibited. Seyler, Holton III, Bates, Burnett, and Carvalho (1998) related work environment, which they term “transfer environment,” to motivation to transfer as the third mediating variable in a linear sequence starting with organizational commitment and attitudes and reactions to training.

Trainee-centered constructs are often heavily perception-based. As noted in the previous paragraph, it is the perception of the work environment, not the “objective” work environment. Similarly, two additional and powerful *expectancy* constructs (Vroom, 1964) that can predict trainee behavior are also perceptual in nature. One is the relationship between effort and performance. It is the degree of the belief that, if one can put in the required effort, they can obtain a certain level of performance (e.g., pass a course). This expectancy, in part, is dependent on the “locus of control” construct. In other words, does one believe that internal or external events have more weight in determining performance of a given task? “Internals” are those who believe their efforts control task outcome. “Externals” believe that task outcome is dependent on forces outside of their control (e.g., teacher, type of school, social class, etc.). Externals, therefore, will be less motivated than Internals and exert less effort, as their model views effort as a minimal factor or a nonfactor. A useful construct developed by Bandura (1977), termed “self-efficacy,” is useful in predicting this effort-performance relationship.

Self-efficacy is defined as the “belief in one’s capability to mobilize the cognitive resources, motivation, and courses of action needed to meet task demands” (Gist, Steven, & Baveita, 1991, p. 838). It is not a global personality trait, but varies from domain to domain, and its level can change over time. One can feel efficacious in technical skills and weak in social skills. Instruments used to measure this construct must be domain-specific to be useful. Persons high in self-efficacy exhibit several characteristics (Bandura 1989):

1. Exert a high degree of effort (high motivation)
2. Have a strong belief that they can accomplish the task
3. Exhibit a great deal of persistence in the face of discouraging events or conditions (commitment)
4. Will not lower their standards to complete the task early
5. Are more resistant to task-related stress
6. Are minimally affected by self-doubt (focus more on the task than their inadequacies)
7. Have higher feelings of self-worth and self-esteem
8. Set higher, more difficult goals
9. Promote analytical thinking
10. Visualize images of success
11. Believe they have more career choices and prepare more for them

These qualities, besides being very much sought after by employers, are what is necessary for a high degree of transfer to take place.

Whereas the first expectancy construct, just explained, is the relationship between effort and performance, the second is the linkage between performance and outcome. To

continue with the former example, one may pass the course (effort-performance), but may believe that they will not be able to get a job or promotion for which the training prepared them (performance-outcome). Outcomes are not only extrinsic, but can be intrinsic or self-satisfying as well. Again, locus-of-control dynamics can be seen to be operative here. Negative-outcome expectancies can quickly reduce motivation levels (“What’s the use?”). Expectancies play an important role in performance. While it is true that not all outcome expectancies are realized, Bandura (1977) suggests that without them, *nothing* is realized.

General work and career attitudes would appear to be a factor in the motivation level for job-related training, but have not been empirically demonstrated in a convincing manner, in part due to the difficulty in identifying and measuring its component constructs. Noe (1986) suggests that the more one has a clear vision of their career path and construes training as a means to this end, the more effort will be evident in mastering training courses. Noe and Schmitt (1986) demonstrated this fact in a study, along with the relationship between locus of control and career-directed activities. He also claims the same is true for “job involvement,” where the job becomes someone’s identity and a means of self-expression, not just a way to pay the bills. Baumgartel et al. (1984) found that managers who feel the need to excel are assertive, enthusiastic, and better understand the importance of training transfer. Providing contrary evidence, Mathieu, Tannenbaum, and Salas (1992) found no significant relationship when measuring the following variables: career planning, job involvement, assignment, or situational constraints (classified as antecedents to motivation).

In enterprises that are striving to rationalize their training and development process, many are conducting needs assessment to determine if a problem should be

addressed by training or a system change. For instances where training is indicated, a skills assessment of individuals may be conducted. Ilgen, Fisher, and Taylor (1979) proposed that the same factors present in the classic communication model are operative variables when providing performance feedback in skill assessment. These variables are source credibility, feasibility of the message, and confidence in the accuracy of the message and the process that produced it. It is theorized that the more the trainee sees these elements as useful and believable, the more the trainee will be motivated to close the skills gap. This assertion was empirically confirmed by Noe and Schmitt (1986). Bandura (1989) called this phenomenon a discrepancy reduction mechanism of self-regulated behavior. The discrepancy (gap) is seen to induce an incongruence that must be resolved.

Following a needs assessment is the issue of whether a targeted individual is involuntarily sent to training or has a choice. Trainees who have a choice of whether or not to go on a course will exhibit higher commitment, should they choose to attend (Fecteau, Dobbins, Russell, Ladd, & Kudisch; Salancik, 1977). A closely related issue of informing the trainee about the training course before training did not appear to be a factor in Hicks and Klimoski's 1987 study. They did, however, confirm the power of choice on commitment once in training.

The final trainee-based construct discussed here and posited by Noe (1986) is *motivation to transfer* and is defined as "the trainees' desire to use the knowledge and skills mastered in the training program on the job" (p. 743). It is different from the general motivation to learn (Hicks & Klimoski, 1987). Motivation to transfer is theorized to moderate learning with changed job performance, but there is, thus far, no empirical evidence to confirm it. It includes the following elements (Noe, 1986):

1. Self-confidence in performing the required task
2. Ability to identify (generalize) situations where the new behavior is appropriate
3. Realization that, by applying the new skill, job performance will increase
4. Realization that the new skills will be able to solve real work problems

Facteau et al. (1995) support Noe's (1986) findings and go on to indicate that motivation is also influenced by the "overall reputation of [the] training" (p. 1).

Problems related to the work environment. The immediate work environment provides many factors that can act as facilitators or inhibitors, depending on their valence state. Awoniyi, Griego, and Morgan (2002) utilized the "Person-Environment Fit" theory that states that these two constructs are predictive of transfer (among other outcomes), as they are interactive. Their study, that construed the environment as multivariate, found that only some variables, such as "freedom, creativity...sufficient resources, [and] low workload pressure" (p.33) were significant. Many attempts have been made to conceptualize and operationalize the work climate and variables. The earliest empirical study confirming environmental impact on transfer was done by Fleishman, Harris, and Burt in 1955.

Vandenput (1973) attempted to link transfer to specific organizational variables. His study in Belgium uncovered 471 factors, of which he classified 112 as facilitators and 359 as inhibitors. He was among the first to challenge the assumption that just because something is learned in a classroom, it will be practiced in the workplace. He identified many variables, but the wider concern has been with the generalizability or applicability of these factors to different organizational settings in a universal way.

In 1979, Huczynski and Lewis used Vandenput's results and two other studies to

attempt to classify and relatively weigh the F-I factors (facilitators and inhibitors). They concluded that transfer factors are organization-specific and used the following generic classification:

1. Facilitating factors that, when absent, inhibit transfer
2. Factors that when absent, inhibit transfer but that, when present, do not promote it
3. Factors that, when present, promote transfer but that, when absent, do not inhibit it

The same factor can be facilitative in one organization and inhibitive in another. For example, the relationship of the supervisor to the trainee can promote or block transfer, depending on whether the superior is supportive or hostile to the newly learned behaviors. This relationship factor (which also includes all immediate workplace stakeholders) is robust across all enterprises studied and is considered a prime determinant of transfer. The authors contend that this is true because, “[while] the learning transfer process is individually initiated, [it is] supported by key individuals and executed by a group” (Huczynski & Lewis, 1979, p. 33). This factor indicates that, unless someone’s job involves no contact with others, transfer is a social act. This viewpoint was also supported by Xiao (1996), who did a study in China, which has a work culture very different from the West. Mmobuosi (1987) indicated that peer influence can work for or against transfer.

Peters and O’Connor (1980, p. 396) identified a taxonomy of eight enabling, work-environment variables that impact transfer:

1. “Job-Related Information” (any information from people or systems necessary to perform the job)

2. “Tools and Equipment”
3. “Materials and Supplies”
4. “Budgetary Support” (outside of the trainee’s salary, which often is considered out-of-pocket expenses required to be successful, such as expense accounts)
5. “Required Services and Help from Others”
6. “Task Preparation” (skills and experience necessary to perform the job)
7. “Time Availability”
8. “Work Environment” (working conditions and facilities)

These factors can be considered necessary--but not sufficient--conditions for transfer to occur. In other words, without them, transfer will be inhibited or blocked, but even if all of these conditions are optimal, transfer may not necessarily happen. Peters and O’Connor (1980) stressed that the same environmental variables affect different persons differently, especially in an affective manner. It is, therefore, useful to see workers on a continuum from low to high performers. While the Peters and O’Connor identified many enabling factors, their view represents more of an engineering approach to transfer--that is, not focused on human factors.

One of the most powerful forces governing behavior in workplaces is the organizational culture. It was defined by Schein (1985) as “a pattern of basic assumptions—invented, discovered, or developed by a given group as it learns to cope with problems...that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel [and act] in relation to those problems” (p. 9). Often, newly learned skills contradict this conventional wisdom and put the trainee in a potential conflict situation with a lot to lose and little to

gain in fighting the “system.”

Schneider and Reichers (1983) attempted to create a model to describe different organizational climates so that their nature and acquisition could be better studied and then deliberately shaped to support organizational performance. They termed their approach *symbolic interactionist*. It was heavily based on George Herbert Mead’s (1932) classic work in anthropology and used it to account for the dynamic and changing nature of cultures. Later, Rouiller and Goldstein (1993) refined Schneider’s definition of climate to state, “those situations and consequences that either inhibit or help to facilitate...transfer” (p. 379), which elaborated Schneider’s restrictive and incomplete version. Their study confirmed the importance of positive transfer climate, but they found no correlation between learning and job performance ratings.

Baumgartel et al. (1984) tried to identify the characteristics of a high-transfer culture for management skills. Their findings indicated that this is a climate where:

1. The manager sets the goals.
2. Upper and lower management see each other as important stakeholders.
3. Managers encourage innovation.
4. Managers expect that trainees will use new skills for performance improvement.
5. Communication is unrestricted and honest.
6. An appraisal system rewards performance.

This list is generally supported by Notarianni-Girard’s (1999) study on transfer in teaching assistant programs. Baumgartel’s et al. (1984) list of characteristics are not found in the majority of local organizations, and the burden of transfer is therefore carried by the trainee, who must not only practice the skill but many times must do so in

an unsupportive environment. This constraint is important, as they concluded that climate is the single most critical variable that accounts for variance in performance. Olivero, Bane, and Kopelman (1997) expanded on point 3 above by studying the effects of active coaching of trainees after training. The group that did not have coaching improved productivity by 22.4% and those exposed to it achieved an 88.0% increase, which appears to certainly be worth the added investment. Gumuseli and Ergin (2002) found a similar positive transfer effect from posttraining management reinforcement.

Expanding on Rouiller and Goldstein's (1993) definition of transfer climate, mentioned earlier, their study involved the impact of components of the two main concepts in that definition: "situations" and "consequences." They conceptualized the workplace environment from a Behaviorist perspective, as a universe of cues. It helps when workers have prompts or cues that remind them when and where to use their newly learned skills and something to reinforce that behavior. Situational "scaffolding" (cues), which prompt skill usage, are said to be visible in four areas: goals, social relationships, tasks (the job design itself reminds workers), and self-control (internal prompting). Consequence cues, on the other hand, mediate future work behavior depending on outcomes and have been identified as: positive and negative feedback, punishment, and absence of feedback. All the cues were found to significantly impact transfer (Rouiller & Goldstein, 1993). Tracey, Tannenbaum, and Kavanagh (1995) built on and extended Rouiller and Goldstein's (1993) study by adding another variable called a "continuous learning culture," which they demonstrated provided significant support for transfer.

While other environmental factors can be favorable to transfer, opportunities for new skill usage are often not present. Ford, Quinones, Sego, and Sorra (1992) tried to determine the factors that affect usage opportunity. They categorized three main areas of

problems: those that are caused by different subcultures in each department (organizational); the immediate work environment (work context), consisting of supervisor, workgroup, and work pace; and trainee characteristics, consisting of ability and self-efficacy. They found that work context and trainee characteristics had the biggest impact. When the supervisor liked or felt more comfortable with the subordinate, the subordinate was likely to get a greater quantity of more complex tasks (as opposed to menial tasks). Supportive workgroups provided an atmosphere where more opportunities were available and utilized. Trainees high in self-efficacy often sought more opportunities. Even when opportunities to practice are available, there may not be a critical mass of implementers that have the new skills, so the traditional behavior patterns will prevail (Clark, 1986).

The '90s have introduced a new variable into the transfer equation. The global economy and information revolution have restructured the business landscape and, therefore, the very nature of enterprises themselves. The quantum leap (paradigm shift) from bureaucracy to a high performance, intelligent, learning organization will necessarily induce turbulence in the workplace because of its suddenness, pace and uncertainty.

Bennett, Lehman, and Forst (1999) studied the transformational effect in a firm introducing a major change initiative called Total Quality Management (TQM). Given the new complexity that globalization induces and deeper insight into organizational behavior, they have created a new construct that goes beyond what the trainee can directly perceive, heretofore termed the "transfer climate." The new construct, *contextual factors*, includes those forces that distally shape the transfer climate. These are classified as: structural (organizational alignment, technology, process, etc.), enabling (leadership,

decision-making process, etc.), and broad climate factors (ambiguity, culture, etc.). One of the broad climate factors is the change climate. Bennett et al. found that a positive change and transfer climate was much more important than even training itself, in that the untrained control group outperformed the trained group when the trained group was trying to practice in a negative change and transfer climate. The authors identified “role ambiguity” as a dominant factor. As the organization and processes change, the nature of jobs must change. Often these new roles are not communicated or are not even known by supervisors. Employees who are uncertain of what is expected of them may choose the safer path of traditional behaviors or simply may resist change (Stiefel, 1974).

Relationship of transfer problems to the intended treatment. Thus far, Chapter 2 has attempted to establish the causal context of the transfer problem. While there are many ways to address these conditions, the researcher has selected a wide-spectrum approach termed Relapse Prevention (RP). RP is a trainee-based, posttraining treatment that creates a structure or scaffolding that will assist trainees in nurturing vulnerable new work habits, especially in environments that are less than accommodating.

RP addresses three of the eight assumptions necessary for transfer, to wit: generalization, support, and maintenance. RP supports generalization and maintenance by serving as a constant, posttraining reminder of what was what was learned in classroom, especially in the goal-setting component. In terms of work environment support, it identifies potential barriers such as those outlined in Peters and O'Connor's (1980) taxonomy of eight factors. Even though the trainee cannot control many of them directly, he or she can create strategies to either minimize their impact (where negative) or advocate to have essential conditions put into place, especially with their superior.

In fact, this superior-subordinate relationship appears to have one of the most

powerful influences on transfer (Peters & O'Connor, 1980; Rouiller & Goldstein, 1993; Tziner et al., 1991; Wexley & Baldwin, 1986). RP can assist in this endeavor by providing the trainee with coping skills such as assertiveness, conflict resolution, or just better communication skills.

Internally, RP helps the trainee strengthen both expectancies and self-efficacy. It reinforces the belief that he or she can, indeed, accomplish the task by applying the new skill, even in an unforgiving environment. As explained before, this effort-performance-outcome expectancy chain has been demonstrated to be a critical internal condition required to establish the level of motivation needed to drive new behaviors.

Chapter 3: Anticipated Outcomes and Evaluation Instruments

Goals

The aim of this applied dissertation study was to improve the frequency of use, quality, and maintenance (persistence over time) of newly learned skills in workplace applications. Specifically, the goal statement is: *The workplace behavior of individuals reflects significant application of the core skills learned in training, except for those behaviors that are blocked by organizational forces beyond the learner's control.*

It was expected that the treatment group, being exposed to a Relapse Prevention (RP) intervention after a common training workshop on problem solving, would significantly outperform the control group, especially in the area of generalization and maintenance in using the new skills. Quality of performance, while important to businesses, was the least important variable in the study. Quality can always be addressed by various remedies, but it is much more important that the trainee remembers to practice the skill at all (generalization), and not just for a novelty period (maintenance).

There is one force that may have had more impact than the intervention itself, and that is the trainee's level of self-efficacy. As cited before, self-efficacy is a powerful predictor of performance. It is quite possible that trainees high in self-efficacy, but not exposed to the treatment, would outperform a trainee with low self-efficacy who has successfully participated in the RP session.

RP applied to transfer of training originated (Marx, 1982) and appears to be used primarily in the United States. The literature reveals no scientific usage of this approach in lesser-developed countries, which have work cultures fundamentally different from America's (Stern & Barley, 1996). It was impossible to predict what impact underlying cultural variables could have on RP's effectiveness. It may be a robust intervention

operating across cultures or be quite culture-specific.

The data would also reveal perceptions of inhibitors and facilitators that impact transfer and the differences between trainees' and their superiors' views on these factors.

Expected Outcomes

There are five expected outcomes for the study. The first four apply only to the treatment group.

1. Frequency Outcome: *80% of trainees' superiors will report that the trainee is using the skill at least once per fortnight or a minimum of six times over the initial three-month period following training.*
2. Maintenance Outcome: *80% of trainees' superiors will report that the trainee has used the new skill at least once in the third (last) month of data collection.*
3. Relapse Outcome: *80% of trainees' superiors will report that the trainee has had no 30-day period where the skill was not used and used at least once in the last month of data collection.*
4. Quality Outcome: *80% of trainees' superiors will report that the trainee has improved at least one rating point higher than their baseline skill assessment on at least four of the five learning objectives.*
5. Intergroup Outcome: *The treatment group will significantly outperform the control group in frequency, quality, and maintenance of the new skill.*

Measurement of Outcomes

The expected outcomes would be measured in the following manner:

1. All of the outcomes except Outcome 4 and the quality part of Outcome 5 would be measured using the frequency section of the *Transfer Performance Summary*, (Appendix D), which the trainee's supervisor was asked to

complete. The *Transfer Performance Summary* was designed to summarize the number of times that a trainee solves and documents a unit's problem over the first month. The raw data would come from the trainee's completing a document whenever he or she solved a problem. The survey was scheduled to be done one and three months after the training intervention, with the three-month point being, among other things, a measure of maintenance.

2. Outcome 4 and the quality part of Outcome 5 would be measured using a five-point rating scale in the quality section of the *Transfer Performance Summary*. The superiors would give an average score, for all trainees reporting to them, on how well the five learning objectives of the training intervention were being practiced. This survey was scheduled to be completed at one and three months after the training intervention. This is the same quality section that the superiors completed before the intervention as baseline data.

Chapter 4: Solution Strategy

Discussion and Evaluation of Solutions

Given the great number of transfer barriers, like Vandenput's (1973) 471 possible factors, the number of solutions is, likewise, enormous. The solutions can be categorized into major areas and can be conceptualized in several different ways. The most obvious strategy is to match the solution to the source of the problem (such as poor instruction, trainee problems, or work environment factors) as an isolated factor. Another approach is the timing of the solution: before, during, or after training. Yet another is the influence, strength, and relationship of transfer variables as they are theorized to interact in a model or chain, as in a correlation path analysis.

Only one model will be discussed here, and the temporal model appears to be the easiest way to view solutions. Figure 3 illustrates a matrix that matches time periods (before, during, and after training) and stakeholders. Each box would contain different strategies to promote transfer. Chapter 5 uses this model as a structure for some of the recommendations.

The following literature review examines solutions in chronological order from pretraining to posttraining strategies.

1. Pretraining interventions
2. Teaching for transfer (design and delivery of training)
3. Related pretraining and posttraining interventions
4. Goal setting
5. Behavioral self-management (BSM)
6. Relapse prevention (RP)

It is important to note that these solutions do not address the universe of transfer

		TIME PERIODS		
		BEFORE	DURING	AFTER
ROLE-PLAYERS	MANAGER			
	TRAINER			
	TRAINEE			

Figure 3. The transfer matrix: Nine possible role/time combinations.

From, "The Transfer Matrix: Key roles and Times to Support Transfer," by

M. L. Broad and J. W. Newstrom, 1992, *Transfer of Training* (p. 52). Cambridge, MA.: Perseus Publishing. Copyright 1992 by Addison-Wesley Publishing Company, Inc.

inhibitors. It appears that many are even based on the tacit assumption that the workplace is either neutral or hostile to transfer and that something extra is required for it to occur.

Pretraining interventions. The first category, pretraining interventions, covers areas or processes that could interfere with trainee motivation if not stressed or addressed. Even before one considers motivation, which is only part of what Porter and Lawler (1968) called "trainability," one must make a determination of ability. If one is not capable of being trained, is overtly resistive, or does not see the relevance of training, it makes little sense to start the process. Given a trainable trainee, Salancik (1977) demonstrated that if the trainee is given a choice (not forced) to go on training, that commitment is increased. How trainees are selected and notified of the basis of their selection has a major impact on performance. The variables that Ilgen et al. (1979) identified concerning needs assessment information were: source credibility, utility, accuracy, level of detail of information, and the optimization of the assessment process that produced the data.

Downs (1970) reported to have successfully used a trainability test, which is a short lesson to see how a potential employee would behave in a full-length training program. She found that it was an accurate predictor of the ability to learn job-specific tasks.

Trainability includes not only ability but also motivation and the trainee's perception (attitudes) of their immediate work environment. Noe (1986) stressed, therefore, that superiors need to help trainees understand the purpose (relevance) and the personal benefits the trainee will derive (motivation). These factors cover such activities as having the superior and, if possible, the trainee involved in specifying training objectives or content, or assisting with training needs studies (Broad & Newstrom, 1992). The process could also involve a dialogue between the trainee and superior about the importance of the upcoming training, its relevance, and how the new skills could be used in re-entry. Brinkerhoff and Montesino (1995) experimented with both pretraining and posttraining, superior-trainee, briefing sessions. The pretraining sessions covered course purpose, relevance, expectations, and encouragement for the pretraining sessions. The posttraining sessions covered what was learned, barrier identification, opportunities to use the new skills, availability of coaching, and the superior's expectations.

Ryman and Biersner (1975) empirically established that trainee attitudes, especially confidence (closely related to self-efficacy), have an impact on training completion rates. This implies that attitudes, which are a form of expectations, need to be deliberately shaped or influenced by management. Noe and Schmitt (1986) suggested, based on their findings, that trainee attitudes on job involvement and career planning should be screened before training to ensure congruence with personal goals. Eden and Ravid (1982) demonstrated the positive link between self-expectations, induced by an

authority figure, and trainee performance. This supports the Pygmalion solution (self-fulfilling prophecy) that superiors should have pretraining and posttraining briefing sessions with their trainees.

While all of the pretraining solutions reviewed appear to improve the transfer process, they will not be used in this study. If too many solutions are used, it will be difficult to determine which solution is producing what outcome, let alone their interactions with each other. The review now turns to facilitators during training, but it should be noted that in the time *before* training takes place, the trainer is also designing instruction, which has a significant impact on transfer via the lesson organization and delivery.

Teaching for transfer. Teaching for transfer involves the deliberate insertion and arrangement of learning conditions, in instructional design, that research and practice have found to have a positive impact on transfer. Clearly, the largest single source of problems comes from instruction that is not systematically designed (Dick & Carey, 1996; Smith & Ragan, 1999). Most local instructors, while being subject-matter experts, have little formal training in instructional design. Therefore, critical learning conditions are often omitted, resulting in “pseudo-instruction,” which looks and sounds like effective instruction, but any learning that takes place is incidental, not deliberate. Instructors need to take at least a basic course in instructional design.

The fidelity of the learning and performance contexts are important. The closer the learning environment is to the performance environment, the greater is the probability that the workplace cues will be explicit and invoke initiation of the newly learned skill (Thorndike & Woodworth, 1901). Much of today’s training results in learning that is rule-bound and “welded” to a fixed context. In order to transfer between contexts,

especially ones that vary on surface features, McGehee and Thayer (1961) recommended the teaching of theoretical principles that can be used in many contexts.

“Stimulus variability” (Ellis, 1965) is another way to promote transfer by giving a lot of examples and nonexamples in different contexts so that the student can generalize the application of it to new context. Many inventions have been created this way.

The way that practice of a new skill is distributed has an impact on transfer. Briggs and Naylor (1962) found that, for most subject areas, if training is distributed over a longer time, it will be retained better. Wexley and Thornton (1972) suggested that the nature and timing of feedback to students plays a critical role in learning. Finally, automaticity is developed through overlearning. That is, practice after mastery has been achieved has been shown to help with transfer maintenance specifically (McGehee & Thayer, 1961), and transfer in general (Kahnweiler & May, 2000; Lee & Kahnweiler, 2000).

Related pretraining and posttraining interventions. Not all transfer factors are trainer-dependent. Broad and Newstrom (1992) suggested the following actions for managers:

1. Scheduling the training conveniently
2. Shielding the trainee from interruption by controlling their workflow
3. Monitoring trainee attendance, and
4. Planning for re-entry.

For trainees, they recommended:

1. Using the buddy system or support groups,
2. Keeping a journal for ideas that can be applied back at the workplace,
3. Drafting performance contracts with the superior, and

4. Participating actively in class.

All of these during-training solutions have been demonstrated to be successful in a number of settings. In its training intervention, this dissertation study employed the systematic design of instruction and teaching for transfer. One possibility is that teaching for transfer supercedes the effect of the posttraining intervention, discussed later.

Goal setting. The most simple posttraining transfer intervention with a trainee is goal setting. Goal setting as a motivational device to encourage a change in behavior has been well documented (Locke & Latham, 1984). Goals are thought to be motivational by “providing direction for action and engaging other cognitive self-regulatory processes: self-monitoring...self-evaluation...self-reactions” (Gist, Stevens, & Baveita, 1991, p. 842). The motivational attributes that goal setting activates are choice (of goal vs. nongoal), interest (energy), and maintenance of effort (Frayne & Latham, 1987). Goal setting is a good strategy when the task is simple and requires effort and persistence, and more difficult goals can lead to better performance, but goal setting is generally more counterproductive as the task becomes more complex (Wood, Mento, & Locke, 1987).

Using goal setting too early in the process can interfere with the learning of a complex task (Kanfer & Ackerman, 1989). Goal setting is thought to work because commitment is thought to follow behavior rather than cause it and because commitment is highly correlated with making the behavior visible (written form), declaring it publicly, and originating it from one’s own desire (Salancik, 1977).

It has only been since the ‘80s that the concept of goal setting was directly applied as a posttraining transfer strategy (Anderson & Wexley, 1983). This technique would involve setting observable behavioral goals and monitoring the frequency of behavior involving the trainee, if not the superior also. Assigned goal setting, using a behavioral

checklist, was employed after a hospital supervisory course, and the treatment group significantly outperformed the control group (Wexley & Nemeroff, 1975). Goals may be assigned by an authority figure or may be jointly set (participative). Dossett, Latham, and Mitchell (1979) indicate no significant difference in the level of performance using these two approaches. Some researchers have argued that participatively set goals induce trainee ownership into the transfer process (Anderson & Wexley, 1983). It was found that combining goal setting and feedback was more powerful than either technique alone (Reber & Wallin, 1984). An assigned goal-setting group retained more learning and viewed it more positively than control or pretraining intervention groups (Werner, O’Leary-Kelly, Baldwin, & Wexley, 1994). A form of goal setting called “contracting” between trainee and superior, with the help of the trainer, was advocated by Feldman (1981).

Because of its simplicity and power, goal setting was used as a component of a wider, more comprehensive approach in the study intervention. This approach will be explained later.

Behavioral self-management (BSM). Goal setting, while effective for simple and possibly short tasks, does not address conditions where more cognitive strategies are necessary because of the complexity of the task. Marx (1982) was the first to suggest BSM as a transfer strategy, having borrowed it from clinical psychologists interested in helping patients with addictions.

Getting a trainee to manage his or her own behavior has been demonstrated as a successful transfer strategy (Latham & Frayne, 1989; Luthans & Davis, 1979; Marx, 1982). Behavioral self-management is defined as “deliberate regulation of stimulus cues, covert processes, and response consequences to achieve personally identified behavioral

outcomes” (Luthans & Davis, 1979, p. 43). By definition, goal setting is, then, a component of most BSM programs. It is not just strictly a Skinnerian approach involving control of stimuli and reinforcements, but it also recognizes the mediating role of human cognition, feelings, and self-efficacy in the process (Wexley & Baldwin, 1986). These processes are vulnerable to outside influence, and part of BSM’s success is thought to be its ability to insulate trainees from the constantly changing demands of surrounding stakeholders by having trainees own their design and maintenance functions (Wexley & Baldwin, 1986). Expanding on the definition, BSM appears to work by the integration of appropriate environmental cues, new skills learned, and reward or punishment of the resulting behavior (Wexley & Baldwin, 1986). In a job behavior study, Brief and Hollenbeck (1985), found little evidence to support the fact that most staff regulate their own job performance (that is, by setting goals and using self-reinforcement). In addition, they found that negative self-criticism was strongly related to poorer performance and that BSM could assist in developing the ability to generate more balanced internal feedback and possibly could assist in a trainee’s assessment of self-efficacy. Brockner (1979) suggested that getting low-self-esteem individuals to focus on the task instead of their inadequacies markedly improved performance.

Typical BSM programs involve: training in goal setting, determining possible barriers in the path toward the goal; devising strategies for coping with these barriers; developing a system to provide explicit and continuous performance feedback (also called “self-monitoring”); and, in the absence of any external rewards, devising a system of self-reinforcement (Gist, Baveita, & Stevens, 1990). In their study, Gist et al. (1990) found that the BSM group outperformed the goal-setting group when the task was complex and novel and also demonstrated superior generalization. As will be seen in the

next section, all the BSM techniques were used in the Relapse Prevention approach for this study.

Relapse prevention (RP). Psychology has been concerned not only with the description of human nature, but also with ways to modify unhealthy or unproductive behavior. Marlatt and Gordon (1980) created a Relapse Prevention (RP) program for addictive behaviors of cocaine users, which included: identification of high-risk situations for slips; skills to deal with those situations; practice of these skills; and cognitive coping skills for handling setbacks, which are a natural part of extinguishing old habits. While the addict's health and very life is at stake in this process, these strong reinforcement conditions do *not* exist for practicing newly learned skills in the workplace.

Marx (1982) was the first to import this model into the educational field. He modified the clinical use of RP for its application as a method to establish and maintain new behaviors over time, involving both behavioral and cognitive components that are taught in the context of relapse psychology. Marx indicated that the success of the RP approach is that it acts like radar to foresee events or conditions that may force the trainee back into old behaviors (relapse) and to identify strategies and skills to address the behaviors before they engulf the trainee. RP's power lies in the reconceptualization, on behalf of the trainee, that a temporary "slip" is not a indication of personal weakness or failure, but rather a natural and expected behavior when in a transition state until the new skill becomes a habit. Slips should be viewed as learning events or part of the learning process--not failures. Without this perspective, a series of slips can turn into permanent, full-scale relapse.

To retain and apply new skills requires cognitive rehearsal (Bandura, 1977).

Cognitive rehearsal is equivalent to Gagne, Briggs, and Wager's (1992) "cognitive strategies," in which principles and procedural knowledge must be combined in a certain strategy to address a coping or problem-solving situation that the transfer environment presents. Normal training does not provide a chance to practice cognitive rehearsal in the performance environment, so this is a possible reason why this ingredient is necessary. Cognitive rehearsal could also boost the trainee's perception of their self-efficacy ("I can handle the situation"), which is the best predictor of performance. Noe, Sears, and Fullenkamp (1990), found that the RP group did more orchestrating (cognitive rehearsal) than the control group and even tried to get their superiors involved in the process.

A closely related concept of self-efficacy is locus of control, as mentioned before. But a study conducted by Tziner et al. (1991) found no support for hypotheses that claimed "internal" locus-of-control subjects would transfer better than "externals."

The RP approach that has been used by different researchers varies in its components. In Marx's original configuration in 1982, he outlined the following contents (p. 440):

1. "Awareness of the relapse process" (the psychology behind it)
2. "Identification of high-risk situations"
3. "Developing of coping responses"
4. "Enhancing of self-efficacy"
5. "Expectancies of the effects of the activity"
6. "Abstinence violation effect (AVE)" (avoiding guilt over slips)
7. "Apparently irrelevant decisions (AIDS)"
8. "Should/want ratio" (business vs. pleasure balance)
9. "Lifestyle interventions" (diet, exercise, stress management, etc.)

10. “Programmed relapse” (role-playing relapse in the classroom)

By 1986, Marx had modified his approach to include goal setting. He laid out the following seven-step program (p. 31), which the literature calls “full RP” to distinguish it from “modified RP,” which is usually a streamlined version. Full RP possesses all the components of the behavioral self-management approach discussed earlier.

1. “Choosing a skill to retain”
2. “Setting an appropriate retention goal”
3. “Making a commitment to retain the skill”
4. “Learning the [14] RP strategies”
5. “Predicting the circumstances of the first relapse”
6. “Practicing the skill necessary to cope with difficult situations”
7. “Monitoring the target behavior following training”

The RP approach has yielded mostly positive, but sometimes mixed, results.

Tziner et al. (1991) found that the RP group used more transfer strategies than a control group, but there was no significant difference in frequency of new skill usage. They concluded that RP appears suitable to combat long-term skill decay and improves one’s sense of self-efficacy by providing “a personal and integrated point of view on the course content” (p. 175).

In an obesity treatment program study (Perri, Shapiro, Ludwig, Twentyman, & McAdoo, 1984) posttreatment telephone contact by the therapist of the RP group that used self-monitoring (which is believed to focus and remind patients) resulted in much higher maintenance of new behaviors than for the RP group that had no posttreatment contact. The posttreatment contact (employing supportive problem solving) may address emerging novel problems in this period that could not have been predicted in the RP

classroom session.

In a comparative study using self-reports and Marx's 1982 model, Wexley and Baldwin (1986) found that assigned and participative goal-setting methods resulted in significantly higher transfer maintenance than either the control group or the RP group. There was no group feedback session for the RP group, unlike the goal-setting groups. The RP group may have done less well because coping skills were neither explicit, public, nor formulated with the help of the trainer, and the trainees were self-monitored. Surprisingly, there was no significant difference between the assigned and participative goal-setting groups in terms of performance, but the assigned group could recall more facts from the training session (probably because of using behavioral checklists). Again, this study draws attention to the importance of the role of posttraining feedback.

Using a modified Marx RP model in supervisory training, Noe, Sears, and Fullenkamp (1990) demonstrated significantly better performance than the control group, along with increased cognitive rehearsal. Those experiencing the modified RP approach were better able to think of new opportunities to use their learnings. The modified RP model included Marx's Steps 1 and 5, plus identifying consequences in the use of the skill and identifying support needed in using the new skill.

While the impact of task and the type of feedback have been examined in previous studies, Burke (1997) sought to determine the effect of the work environment. Using undergraduate students, Burke compared a Full RP model group to a Modified RP group (Marx's 1986 model Steps 4, 5, and 6, which identified but did not practice coping skills) and a control group. Burke determined that Full RPs performed better in unsupportive work climates than did the Modified RP group or control group. The streamlined, Modified RP group performed better in supportive environments. The

surprising finding was that the highest motivation to transfer came from the control group; inversely, the Full RP group had the lowest score in that area, but the highest in the *ability* to transfer. The researchers believe that RP may be counterproductive under certain conditions for two reasons: It makes the trainee question their ability to perform in a hostile climate and it tires the trainees with additional RP training. The study's generalizability is limited by its clinical, not work, setting and the use of self-reports instead of more objective measurements.

In 1999, Burke teamed up with Baldwin in another study closely related to one just discussed. They used employees (research scientists) and taught them coaching skills and divided them into the same three groups as in the previously mentioned Burke study. Marx's (1986) seven-step model appeared to work best in unsupportive environments, while Modified RP worked better in supportive climates. They believe that self-efficacy may be negatively affected by the reviewing of high-risk barriers or obstacles.

Description of Selected Solutions

For the present study, all solutions employed were selected from the literature, but modified where necessary for the local culture. Marx's (1986) full seven-step Relapse Prevention model was utilized with the treatment group. The main components have been outlined in the previous section. Note: Throughout the balance of this document, the individuals or subjects being exposed to training are called "trainees," and the parties to whom they report on the job are termed "superiors," so as not to have the meaning of "supervisor" get confusing, as many of the subjects were supervisors.

The study can be classified a controlled experiment that was designed to involve a randomly selected group of 30 supervisors and senior technical staff (referred to as trainees) from a local utility company that employs over 500 personnel. Actual

supervisors were used to avoid the “clinical setting” problems of some past studies that mainly involved students who were not in a workplace setting and thus greatly reduced the generalizability of the findings.

Many of the previous studies taught the trainees skills that were hard to observe or measure in action, such as coaching, assertiveness, negotiations, time management, or general supervisory skills. If the researchers did define exactly what the required behavior was, oftentimes they relied on self-reports with no objective backup measurements. Researchers (Podsakoff & Organ, 1986; Thornton, 1980) have found self-reports to be unreliable because of problems with memory, self-image, and perceptions of expectations of the researcher. Therefore, a behavior was sought in this study that was clearly observable and could easily be documented, thus eliminating this problem.

The trainees were exposed to a two-day workshop on a Kaizen (Japanese for “continuous improvement”) minor problem-solving technique. Kaizen is a culture in which everyone, at all levels in the organization, in their own spheres of influence, seek to improve systems and methods (*how* work is done) without having to be prompted by superiors. Note that this type of problem solving is *not* a germane or routine part of the job duties, as are those tasks found in a job description, for instance.

The *Kaizen Lesson Plan*, which contains objectives, content areas, instructional events and schedule, and assessment and evaluation plans, can be found in Appendix E. It was designed and delivered using principles of instructional technology provided in the ITDE program. For example, it started with clearly stated, achievable learning objectives that drove the design of the workshop. Immediately after they had been created, an assessment strategy was devised to ensure that the trainee could at least perform the learning outcomes in the classroom. The material employed Keller’s (1979) motivational

ARCS model (standing for attention, relevance, confidence, and satisfaction) in which attention was gained and held by stories and an interesting delivery, the relevance of its application to their jobs was demonstrated, confidence was built by having the trainees practice their new skills, and satisfaction (or reward) was linked to making their jobs easier in the long run and making them more promotable or employable. The content was structured using sequences that either went from the “big picture” to their job level, or used building-blocks skill sequencing. The overhead projector was main delivery technology, but was supplemented by PowerPoint to support the presentation of digital photography (explained below). It also utilized the techniques of “teaching for transfer,” which stressed providing concrete examples and nonexamples of abstract concepts and using examples in different contexts to promote transfer. Digital photography was used to provide many visual examples of Kaizen improvements. The five learning objectives are listed below to illustrate the scope and detail of the workshop.

1. Given their role as a supervisor, trainees see improvement efforts (for their procedures, techniques, and tools) as part of their job.
2. Given a situation that could be improved by minor problem solving, trainees will, on their own, identify areas that need to be improved (that they can do something about at their authority level).
3. When a problem or improvement area has been identified, trainees will create good solutions or make improvements to an existing system.
4. When collaboration with others is required in the problem-solving process, trainees will work well with them (teammates, coworkers, superiors, people from other departments, etc.) in efforts to plan, implement, or accept improvements.

5. Given an agreed-upon solution, trainees will document or create “job aids” (checklists, memos, signs, lists, etc.) to help others remember or practice the new method, or be aware of the new situation.

At the end of each day of training, an assessment of the skills learned was made by the instructor using a quiz to ensure that the trainees could actually perform the new skills (in the classroom), which is essential for transfer. Once back at the workplace, after trainees had identified and solved a departmental problem, they were to document it digitally and make it known to all affected stakeholders, including their superiors via e-mail (Milheim, 1994). A copy of this *Continuous Improvement Event* document (see Appendix F) was also electronically copied to the trainees’ Human Resources department (HR) and the researcher as a backup counting (measurement) failsafe.

A group of 30 trainees was to be randomly assigned to either a control or experimental group by the HR department. The sampling was not to be known to the researcher, who was also the workshop instructor, until after the training was complete, to avoid any bias in the classroom delivery. The planned control group of 15 would then be returned to work without further interventions. The experimental group was exposed to an additional three-quarter-day intervention called a “booster session” (Relapse Prevention) in the same week that training took place. Again, instruction was designed using principles in ITDE and incorporated instructional technology.

The RP session involved setting goals, identifying barriers to practicing the new skills back in the workplace, developing strategies and skills to deal with them, teaching the “psychology of relapse,” and teaching self-management approaches to changing behaviors. The instructional technology of *PowerPoint* slide presentations were incorporated into the session. The *Relapse Prevention Lesson Plan*, in Appendix G,

contains the objectives, content areas, instructional events and schedule, and assessment and evaluation instruments. The *Relapse Prevention Worksheet*, a concise reference document, which the trainees used to customize and detail their RP strategies, can be found in Appendix H.

Before, during, and after training, measurements were taken to obtain a comparison between pretraining and posttraining behaviors, between the control group and treatment group, and between short-term and long-term usage of new skills. *It was predicted that the RP group would significantly outperform the control group (generalization) and would practice the new behavior over time (maintenance).* In this study, maintenance was to have been examined over a three-month period. This is the first time (to the researcher's knowledge) that the RP approach was being used outside of the U.S.; therefore, the cultural impact is largely unknown.

One philosophical problem with using the RP approach is defining the old behavior into which the intervention attempts to prevent trainees from "relapsing." Here the answer may be "non-problem solving." In the West Indies, the primary role of supervision is often thought of as "mouthpiece of management." By and large, the only time subordinates solve problems is when their superior directs them to do so. In any relapse session, a "relapse" and a "slip" must be operationally defined. Here a "slip" was defined as going more than a fortnight without solving a problem, and "relapse" was going over a month without solving a (nonroutine) problem or making an improvement.

Another issue is that the trainee could possibly "run out" of problems to solve in his or her area (unlike assertiveness training, where there are continuous opportunities to use the new skill). While it theoretically is almost impossible to exhaust all the possibilities for action, as thousands of things need improvement, it depends on the

identification process that the trainee uses and what one defines as a “problem” or “area for improvement.” The trainees’ definition can “shrink” the scope of perceived opportunities. This is especially true in organizations that do not have standards, because a problem, by definition, is a gap between a desired state and an existing state. Without a standard, there is no desired state and therefore, technically, no problem.

As a behavioral prompt and to help trainees focus on their goals, the RP group was asked to report fortnightly on how many problems they solved in the last reporting period, using a standard template called a *Trainee Self-Monitoring Report* (see Appendix I). This was to be completed and e-mailed to HR and the researcher. The superior was not to get a copy, as they might have tried to intervene if they did not see that problems were being solved.

Report of Action Taken

The study was hampered by two major setbacks in data collection—one before and one after the intervention. As indicated earlier, the researcher could not use his own employer to conduct the study due to the limited number of supervisors there. The host of the study had sufficient numbers but wanted all data collection to be done by their HR department, which was short-staffed and had many other routine duties and projects that had a higher priority than the study.

The *Doctoral Study Agreement* (see Appendix J) between the researcher and the host was made in November 2001. This was after a two-month negotiation period, which revolved around a four-page document entitled the *Doctoral Applied Dissertation Study* (see Appendix K), to which the *Agreement* refers. It had appended all of the data collection instruments that would be used. It stipulated the activities that would take place, a timetable, and specification of roles of all the stakeholders. The following month,

a meeting to launch the study was hosted by HR. The 14 superiors of trainees were invited to get an understanding of the purpose of the study and their roles in it. Only about six attended. It ended with a question-and-answer session. The nonattendees were sent information via e-mail.

Being close to the holiday season, baseline data collection did not begin in earnest until January. The 14 superiors were given the *Previous Training Transfer Profile* survey, and the targeted 30 trainees were asked to complete the *Trainee Transfer Perceptions* survey and an instrument to measure their self-efficacy in continuous improvement skills, entitled *Trainee Improvement Opinions*. Also during this period, study protocols were reviewed and approved through the Institutional Review Board (IRB). Appendix L contains the letter sent to all participants *after* the study was completed, as informing them *before* the intervention would have biased the results.

The data collection was scheduled to take place over a two-week period, but by the end of June (a half-year later) only nine of the 14 superiors had returned their surveys, despite numerous e-mails and personal reminders by the HR staff. For the same period, 23 of the 30 trainees had completed their instruments. The final tally, based on those 12 who actually completed Kaizen training, indicated that there were still two outstanding surveys due from the superiors (out of six) and one from a trainee.

If everything had gone according to plan, the baseline data collection would have been done sometime in mid-February at the latest. Then, with a standard two-week training notice, Kaizen training could have started in early March. Since the study called for a long three-month data collection period, a decision was made in mid-June to start the implementation of the training intervention in early July to keep the whole process within the dissertation deadlines. Since this period was in the middle of summer

vacations, it was decided to give the two-day Kaizen workshop twice so that the maximum number of trainees could attend. This was a departure from the *Proposal*, which indicated that it would be offered only once and to a group of 30. Every effort was made to present the material and exercises in the exact same manner so that neither group would have an unfair learning advantage. Although 30 were invited, only 15 attended Day 1 of both offerings combined; of those, only 12 completed the course. In order to count how frequently the trainees were using their new skill, they were asked to complete a *Continuous Improvement Event* form and e-mail their superior, HR, and the researcher.

The day following the second Kaizen workshop, the Relapse Prevention session was given to five graduates of the Kaizen course. Quizzes (see Appendix M) were given each day in all workshops to establish whether learning had taken place in the classroom, which is a prerequisite for transfer to occur. In addition to the *Continuous Improvement Event* form, RP trainees had to complete a *Trainee Self-Monitoring Report*, which asked for the number of improvements implemented in the fortnight period. The two postintervention instruments proved to be a significant source of data collection problems.

Near the end of July, the researcher also realized that the HR staff may be getting overwhelmed with all the microinstructions that the researcher was sending them, as they have many other duties and responsibilities to execute. Therefore, the researcher created a *Dissertation Study Checklist for HR* (see Appendix N) that clearly outlined what activities and instruments were outstanding and all the activities that needed attention in the future until the end of the study, on one piece of paper. The HR staff indicated that it helped them to understand their responsibilities better.

In the *Midpoint Progress Report*, submitted in early September, the researcher

related that no trainee had documented any improvement event in the seven weeks since the training sessions. The treatment group of Relapse Prevention trainees had even set a goal in training that they would have made at least one improvement or solved at least one problem per fortnight. Up until the midpoint, with three of the six fortnight reports due, only one RP trainee had forwarded the first fortnight report, which was a week late and indicated that no improvements had been made.

There was also a postintervention *Transfer Performance Summary* survey that was to be completed by the trainees' six superiors at one month after the intervention. It would have revealed the superiors' opinion of why transfer was not taking place. Not one of the superiors, even with reminders, returned the survey. At this point there was no transfer data (good or bad) and no information on why transfer was or was not taking place. It appeared that all stakeholders were ignoring the study. A decision was then taken to discontinue the three-month data collection process and replace it with direct interviews to determine what was happening.

Interviewees were classified into four groups. One was the 12 trainees who completed the Kaizen course, the second were those five Kaizen graduates who went on to take part in the RP session, the third were the trainees' superiors, and the last group included key managers who were not directly involved in the study. For each group, a separate interview protocol was developed to examine the dynamics from their perspective. The second week of September was fully dedicated to traveling to all four locations of the organization to conduct the interviews.

During the interview week, seven key managers, two of the six superiors, six of the twelve Kaizen trainees, and three of the five RP trainees were actually interviewed. Their responses were very useful in determining problems with transfer and with the

design of the study itself. These results are found in Chapter 5.

Chapter 5: Results

Results

Because of the disruptive process problems that affected the study, discussed in the previous chapter, the researcher will first attempt to present the results as outlined in the *Proposal*. The information provided from direct interviews of the stakeholders will then be presented and discussed to move from a content focus (Kaizen findings) to a process focus and its implications.

The original problem statement of the study was that *skills learned in training are not adequately reflected in workplace behavior to make a significant positive impact on performance*. The goal statement, a condition to be obtained after the application of a solution, was that *the workplace behavior of individuals reflects significant application of the core skills learned in training, except for those behaviors that are blocked by organizational forces beyond the learner's control*. The solution applied to the treatment group was a three-quarter-day session in Relapse Prevention (RP), where the trainee, among other activities, set goals, addressed transfer barriers, and planned to exercise self-management. The training sessions incorporated instructional technology components and reporting mechanisms related to self-management were based on e-mail technologies.

Quantitative interview data. The expected outcomes, stated in Chapter 3, were: use in terms of frequency of the new skill (generalization), quality of skill usage, and persistence of skill usage over the three months of the data collection period (maintenance). They are listed here again, with their shorthand titles for easy reference.

1. Frequency Outcome: *80% of trainees' superiors will report that the trainee is using the skill at least once per fortnight or a minimum of six times over the*

three-month period following training.

2. Maintenance Outcome: *80% of trainees' superiors will report that the trainee has used the new skill at least once in the third (last) month of data collection.*
3. Relapse Outcome: *80% of trainees' superiors will report that the trainee has had no 30-day period where the skill was not used and used at least once in the last month of data collection.*
4. Quality Outcome: *80% of trainees' superiors will report that the trainee has improved at least one rating point higher than their baseline skill assessment on at least four of the five learning objectives.*
5. Intergroup Outcome: *The treatment group will significantly outperform the control group in frequency, quality, and maintenance of the new skill.*

While the trainees never documented, via the e-mail form, any Kaizen-driven improvements in the seven weeks following the training, they reported in the interviews that many had, indeed, made such improvements. To be counted, the improvement event had to meet the following criteria:

1. The problem could not be ones that they are expected to solve as part of their routine job function.
2. The improvement must focus on *how* things are done, not just doing things.
3. The improvement cannot be a special assignment or project given to them by their superior.
4. The problem or opportunity had to be identified by the trainee (not their superior or coworkers).
5. The trainee had to take the lead in designing the solution.

6. The improvement must have been fully implemented.

Table 8 outlines the trainees' self-reported attempts to implement Kaizen solutions. Because they did not document the exact dates of their interventions, it is impossible to fully answer outcomes related to maintenance (Outcome 2) or relapse (Outcome 3).

Table 8

Intergroup Transfer Rate Comparison

Group	Trainees Interviewed	Solutions	Solutions per Trainee
Control	5	8	1.6
Treatment	3	7	2.3
Total	8	15	1.9

Table 8 indicates that the RP group implemented more (44%) improvements per capita than the control group. This finding would support the frequency criteria in the Intergroup Outcome (5): *The treatment group will significantly outperform the control group in frequency, quality, and maintenance of the new skill.* The quality and maintenance components of this outcome could not be determined as there was no quality feedback from superiors or dates recorded by the trainees when their improvement events were implemented. Outcomes 1 through 5 are based on superiors' reports, which, as reported in Chapter 4, were not forthcoming. Because of the truncated data collection period (six weeks instead of 12 weeks), neither the Frequency Outcome (Outcome 1) nor Maintenance Outcome (Outcome 2) could be measured. The Relapse Outcome (Outcome

3) could not be supported because of implementation dates not being reported. The Quality Outcome (Outcome 4) could not be supported based on the fact that the superiors did not rate this area for their trainees, but could be partially supported, as the trainees reported that their improvements were in place and working. The balance of the results in this section will focus on the data provided by the interviews, moving from the lowest to the highest levels of the organization.

Interview data from Kaizen trainees. As outlined in Chapter 4, four interview instruments were developed for the four critical study stakeholders: Kaizen and RP trainees, their superiors, and some key managers. The Kaizen trainees' responses outlined in the *Transfer Survey* (see Appendix O) will be reviewed first.

The first item asked the six trainees how they felt about the value of the Kaizen workshop. All except one made positive responses in that they saw it as very good, beneficial, valuable, and helped one realize that some of their previous behavior was on the right track. Only one said that they had not learned anything new. When asked if any regretted having taken the course, all responded that they would have taken it again if they had it to do over again. They all expressed the belief that they had learned the five Kaizen objectives and still could perform them well. This position is corroborated by the results of the daily quizzes given to the trainees to establish that the required learning had taken place in the classroom (a prerequisite for transfer). The *Kaizen Workshop Quiz Scores* sheet can be found in Appendix P. The trainees' position was also reflected in the *Workshop Evaluation by Participants* sheet in its ratings and comments (see Appendix Q).

The trainees were then asked to provide concrete examples of their improvements. The following list captures all of their responses and is divided into trainees who took

only the Kaizen workshop (control group) and those who went on to the RP session (treatment group).

CONTROL GROUP (eight improvements):

1. Daily review of plant procedures before shift.
2. Being specific on machine problem-reporting.
3. Designed a new form.
4. Made directories for my hard drive.
5. Reorganized my manual filing system.
6. Modified the programming in Maximo to create more user-friendly reports.
7. Illustrated planning and scheduling concepts.
8. Explained work order priorities for Maximo.

TREATMENT GROUP (seven improvements):

1. Redesigned two of our HR forms to make them more user-friendly (counts as two).
2. Reformatted HOLIS computer display for medical plan in ABRA (HR software).
3. Reorganized files so that others could access documents quickly when I am not around.
4. Redesigned roles of panelists for HR recruitment interviews.
5. Redesigned how we prepare HR files for executive use.
6. Marketed HR initiatives to line managers.

Part of their training also involved communicating solutions to the affected stakeholders.

The trainees utilized various communication channels to accomplish this: memos (hard copy), e-mail notices, meetings, one-on-one discussions, samples of new procedures or

documentation, and word of mouth.

As indicated before, even though trainees were making improvements, they were not documenting it on the *Continuous Improvement Event* (CIE) form. This was a critical part of the study's data collection procedure necessary to measure frequency of the new skill. Indeed, previous studies have been faulted because of not having a "hard," objective method of measurement. When asked why, even though they had been trained in the purpose and how to complete the CIE in training and were also tested for that ability, the trainees responded that they either totally forgot about the documentation requirement or that it would not make any difference with HR (they would not do anything with it). Remember that the study design did not permit trainees to know a study was taking place. One trainee said that he remembered the requirement, but was just too busy to comply.

The trainees were asked to respond to factors that might have affected the amount of continuous improvement they could practice. Most said the organizational work culture had a mandate for improvement and, therefore, was a positive force. One said it was neutral. Closely related was the bonus and incentive system. All but one said it had a neutral impact, and one said that the appraisal system rewards making improvements. On their relationship with their superior, three were positive, two negative, and one neutral. The superior's work priorities were seen as having a negative impact on half of the trainees, as getting routine work done had high priority. Two said it had a positive influence because it stressed improvement, and one was neutral. Four said their relationships with coworkers had a neutral impact, while two said it was positive. Half (three) of the trainees rated the available amount of time as negatively influencing the practice of Kaizen, while two said it was neutral, and one said it was positive. Lack of resources to make the improvements was not seen as a problem with anyone (Kaizen

typically does not involve much expense). They all saw their level of motivation to use Kaizen as high, but only half saw it as a part of their job (an objective of the Kaizen training), the others stating that it was not in their job descriptions and so they did not view it as essential.

Table 9

Transfer Factors Impact From Trainee Interviews

Item	Number Reporting		
	Positive	Neutral	Negative
Work Culture	4	1	0
Bonus/Incentive System	1	5	0
Relationship with Superior	3	2	1
Superior's Work Priorities	2	1	3
Relationships with Coworkers	2	4	0
Time Available	1	2	3
Resources	0	6	0
Self-Motivation	6	0	0
Perspective About Your Job	3	0	3

Since motivation often depends on incentives, the trainees were asked if making improvements in the way things are done in their unit is directly rewarded. Two said that no incentive exists, two said that one would get a bigger bonus, one said they would get promoted faster, and one said there is only verbal reinforcement from his boss ("Good work!").

Building on the previous item, the trainees were asked what it would take for them to make more improvements. Their responses follow.

1. Expose more staff to it.
2. Use temps (temporary workers) to free up some of my time.
3. Having my superior expect me to use it.
4. More time.
5. Monetary incentives.
6. Exposure to more of the company's systems (so they can be understood and improved).
7. It's all based on individual drive.

Everyone in the organization had undergone training in *Core Values* in 2000 or 2001. Three skills in this training directly support Kaizen: problem solving, creative thinking, and self-motivation. They were asked to what degree the system rewards these behaviors. Everyone agreed that there is no reward to practice any of the *Core Values*. A majority was quick to add that most of their managers do not practice them. One said that an innovator can even be considered a “troublemaker.” The item went on to ask how these values are promoted (or not promoted) by their superiors. The majority stated that “they expect us to do it” but don’t do it themselves. A few said their superiors model the values, or have discussions about them, but don’t use the *Core Value* terminology explicitly.

To determine the extent of the superiors’ knowledge and involvement, the trainees were asked how much they thought their superiors knew about the workshop or the documentation requirement. Four said they did not think they knew anything, and one indicated they were not fully aware. The inquiry went on to ask about any interactions between trainee and their superior on the matter. Four said “none at all,” and two said the superior had asked what they had learned and how it could be used in the workplace.

Interview data from RP trainees. Of those five Kaizen graduates who went on to take the RP session, three were interviewed using the *Transfer Survey* designed for them (see Appendix R). The first item asked if RP is an effective method to help them practice their Kaizen skills. Two said it had no impact at all, and one said it had a great influence. It should be noted that the session assessment evidence contained in the *Relapse Prevention Quiz Scores* sheet (see Appendix S) appears to support the assertion that they had learned the technique in the classroom setting, as the average score was 75%. When asked what did not work, they said goal setting and rewards and punishments that they were supposed to self-administer. One noted that they could not punish themselves (give up something when slipping or relapsing) for something that they are not held accountable for in the first place. What did work for them was a discussion of the possible workplace barriers; it helped them keep on track, and the goal setting was useful for one person.

Each RP trainee completed an *RP Worksheet* (see Appendix H for all responses made in that session) that was meant to record their goals, benefits of practicing Kaizen, workplace barriers and strategies, and self-management incentives. It was also to act as a handy reminder of their commitment, and therefore was deliberately made as a handout so that it would not become “lost” in their training manual. When asked how many times the trainees looked at or referred to this sheet, two said never, and one said they always keep it on the top of their desk (as instructed).

They were then asked, when two weeks had passed and they had not made an improvement (definition of a “slip”), what action they did take. One said they totally forgot, and another said it served as a reminder to start looking for something to improve. The same question was asked at the one-month period (definition of a “relapse”), and one

said they had forgotten about it.

One way that trainees were indirectly reminded of their Kaizen commitment was through e-mail reminders sent by HR when their fortnightly *Trainee Self-Monitoring Reports* (Appendix I) became overdue. The item asked them about the reminder's influence on their behavior. All three replied that it reminded them to start thinking about things that could be improved. It is important to note that, of the 15 reports (5 RP trainees x 3 fortnights) that should have been filed for that period, only one was filed. This e-mail-ready form takes only about 1 to 2 minutes to complete.

The trainees were asked how much they felt their superiors knew about the RP session and fortnightly reporting requirements, and the responses were: nothing, don't know, and fully aware. The last response was untrue, based on the interview with that person's superior. They were also asked if they had any interactions with their superior on the matter, and all three said no.

Finally, they were asked if they thought that the RP strategy was an effective method to get trainees to practice their new skills. All three said yes, *even* the trainees who replied in the first item that it had "no impact" on them. They were then asked why. They said the seven steps were easy to follow, the barriers discussion was helpful, it served as a reminder to them, and it reinforced the Kaizen skills. When asked what could be done to make it more effective, their system-related responses were: make cards or posters to remind us, have an organizational incentive, and publicly acknowledge their achievements. Their training-related answers were: have more participants in the RP session to share and network, make the session at least one full day (as it was too rushed), and have a better explanation of the improvement documentation requirements.

Interview data from superiors. The review of the data will now turn to the

trainees' six superiors, of whom two were interviewed using the *Transfer Survey* designed for them (see Appendix T). One indicated that they had attended the initial study orientation meeting last December. When asked if they got enough information to know what it was about and their role in it, one said yes and the other heard about it through the e-mail notice (sent to those who could not attend). The latter superior said they did not have enough information and had had a negative reaction ("What, again?" and "What will they think of next?"). The superior who was at the meeting had the correct idea about the purpose of the study, and the one who was not there had thought it was about looking at problems in general in the organization.

The superiors were asked to define, in their own words, a few key terms. One knew the definition of "transfer of training" and the other incorrectly defined it as "transfer of knowledge from an expert to a learner." They both could *not* define the purpose of the Kaizen training, and only one could properly define the purpose of the Relapse Prevention session.

The next item asked about any interactions that they may have had with their trainees about either Kaizen or RP. Both of them said none, and one added that they were too busy. They were also asked if they saw any evidence of improvements that their trainees had made. One said none, and the other mentioned one.

When asked about noncompliance with documentation requirements on the part of their trainees, the superiors remarked that it may not have been very important to them, and the other said it may have been too simple (and therefore not seen as important). They were also asked what factors in the work environment negatively influenced the trainees with their practice of Kaizen. Some responses were: a chaotic work environment, a lot of tight deadlines (for routine work), and being understaffed.

Superiors were also asked the same string of organizational questions that the trainees were given to get the superiors' managerial perspective on those issues. The work culture was seen as nonsupportive, and one added that many managers do not practice the *Core Values*. The other said that their department encourages improvements. The bonus or incentive system was seen negatively by both, and one remarked, "*Core Values* are often ignored in the greed to secure management bonuses." They both said that their relationship with their trainees was a positive influence, but disagreed about how their work priorities impacted their subordinates. One said the work priorities were a distraction to Kaizen, and the other said it was supportive. They were also asked about the trainees' *perception* of the superiors' priorities. One said it was beneficial and the other said it was not a problem as long as they communicated. They both agreed that relationships with coworkers had a beneficial effect. Time was not seen as an ally, and resources were not a factor. They each held that their trainees had high motivation in this area, but one remarked that senior staff see improvements as more a part of their job than do junior employees.

Superiors were also asked the same questions that their trainees answered about *Core Values*. One stated that there is no reward for unionized staff to practice them, and the other said that management bonuses are impacted via the *Peer Evaluation* input. They were asked how they promote these values in their unit. The responses included: weekly briefings, informal discussions, and actually modeling the values in their behavior.

Both superiors thought that the rate of transfer was lower in their organization than in the USA (10% rate). They both also thought that it was an important organizational issue that needed to be addressed. One believed it was important because of the loss of the training dollar investment and the disruption caused by sending workers

on training. The other said they also need to improve to satisfy “the higher-ups.”

They were asked what can be done both personally and in the system to promote transfer. The first part was answered by suggesting weekly briefing sessions where one can identify areas of improvement and also debriefing the trainee after training. Some systemic responses were: the hard-linking of the *Core Value* performance to the reward and recognition system, not making the process HR-driven (that is, have line management buy-in), tailoring training for exact needs, and making it more relevant.

The superiors were asked to look back and tell whether they thought the study was worthwhile. Both said yes and would have “voted” for it, not vetoed it. They were also asked why they did not complete the postintervention *Transfer Performance Summary* survey (Appendix D), which would have taken about five minutes to complete. One said getting them more involved in the process would have helped, and the other said it would have helped to have their staff remind them, as they get about 30 new e-mails a day and have trouble handling and remembering everything.

Interview data from key managers. The final stakeholders interviewed were seven key managers to get a broader organizational view on the dynamics of the study, using the *Transfer Survey* designed for them (see Appendix U). It should be noted that only two of these individuals were actually briefed on the study; the others heard about it incidentally, if at all. They were first asked if they saw any evidence of the improvements that the trainees could have been making. None of them saw any evidence, stating that they either did not know who was in the study or that they knew but had not observed any changes.

The “trainee failure to document” issue was asked next. The key managers offered the following possible reasons for noncompliance.

1. They probably forgot about the paperwork.
2. We are not a documentation culture.
3. They usually fill out only standardized forms.
4. The fact that it came from the instructor (researcher) instead of their boss.
5. Plant people, more than office staff, are more likely not to document.
6. Its not part of their normal job.
7. They are not being rewarded or paid for it.
8. There is no consequence for noncompliance.
9. They don't consider it of value.
10. No idea.

The standard transfer question that appeared on the preintervention surveys was then asked: What factors inhibit the transfer process? Their responses are clustered in the same five categories that were used in the preintervention transfer factors data collection instrument found in Appendix B. There were no responses in the macro-organizational category.

INSTRUCTIONAL

1. Learnings are too generic and can't be "translated" back at work.
2. The classroom objectives are not aligned with the workplace objectives.
3. No one thinks of transfer consciously.
4. Content is not seen as relevant or appropriate by trainees.

TRAINEE

5. Some trainees are not motivated.
6. Some trainees do not take ownership of their area.
7. Trainee did not grasp content in the classroom.

8. Some trainees cannot internalize or integrate learnings.
9. Trainees are habit-bound and like to stay in their “comfort zone.”
10. They forget a lot of what they learn.
11. Trainee did not agree with [instructional] content.

WORK ENVIRONMENT

12. Not having an opportunity to use it.
13. Heavy workloads.
14. Trainee is not or does not feel authorized to use the new skills.

STAKEHOLDERS

15. It is not supported by the boss.
16. The boss demands things be done the traditional way or his way.
17. Some departments have antichange cultures.
18. Lack of support in general.
19. Trainee’s boss is not aware of what they learned.
20. Boss is untrained in the new skill.
21. Trying new things exposes people to risk of failure or criticism.
22. Not supported in the work environment.
23. Negative reactions by stakeholders.

The key managers had divergent views on the *Core Values* question asked of both the trainees and their superiors, too. One said that they are not rewarded at all, another that they are measured but not rewarded directly, another that they are not rewarded but that punishment can result from breaching the values (e.g., ethics), and yet another believes that a good annual appraisal leads to rewards. Speaking about staff at certain levels, one mentioned that they all get the same reward, so there is really no reward for

effort. Some managers thought more on a personal level and said that “spot” rewards (discretionary budget each manager has to instantly reward good work) are used, one said that rewards and the form they take can vary by manager, and more negatively, one said the system promotes an “every man for himself” atmosphere because of the lack of team incentives. When asked how they promote these values, modeling was the most frequent response, and the second was that the promotion comes out naturally when coaching their staff on an actual task or assignment. One said they talk about the values only at appraisal time. Three responded that, while the values may be appropriate, the way they are stated is not useful, so they either speak about values in general or personal values that they hold, and one went on to say they use the “performance management” platform or framework to deliver values related to it.

On the local transfer rate, three said it was lower than in the USA, two said it was about the same, and two said it was higher in their units. Several made a distinction between “hard” and “soft” skills and believed that hard technical skills transfer much better than soft interpersonal skills. Five stated that transfer was a significant issue in the organization, especially since about 90% of their \$3 million training budget is being lost. Two saw the transfer situation as something that has “room for improvement.”

Key managers were asked what they can do personally to improve transfer rates in their units and, secondly, what system changes can be made to increase the transfer rate.

PERSONAL STRATEGIES:

1. Empower my staff.
2. Give staff more support.
3. Supervisor posttraining briefing with trainee.

4. Gain the trainee's commitment.
5. Provide staff with more opportunities to use the new skill.
6. Have trainee share learnings with other staff.
7. Have trainee make recommendations of how to incorporate the learnings into the system.
8. Coach trainee while they are implementing.
9. Make the work environment friendly for skill usage.

SYSTEMIC STRATEGIES:

1. Alignment of classroom and workplace objectives.
2. Establish standards that demand the use of the new skill.
3. Customize the training for specific tasks they will be doing at work.
4. Allow management more flexibility (from HR policies) to place staff where their talents and interests lie; get managers to be responsive to this idea.
5. Making the staff happy. Then they will be motivated and they will perform.
6. Provide the training just-in-time so its relevance is seen and nothing forgotten.
7. Sell the training and whet the appetite first, and later on conduct the training.
8. Look at the job design so that it permits use of new skills.
9. HR must help line management to do all of the above.

The managers were then asked how managers in general felt about studies or evaluations. Four of them said it is seen negatively as useless paperwork that distracts them from their core duties or as some form of harassment. Another said it would be seen favorably if they buy in or find the relevance of the initiative. One said it is often seen as doing a favor for someone else. Based on their responses, they were asked about the low compliance rate in data collection activities. Their responses were that it seemed onerous,

they could not see the value in it, it was not marketed well, there were no consequences for ignoring it, or no one reminded them (as they are very busy). Speaking about improvements specifically, one said that the system rewards only *today's* operational and financial performance, and not innovations needed for the future or activities seen as noncore.

For the transfer study, most said that those involved appeared to have a very low commitment level and were too busy to give it much effort. Finally, they were asked what could improve the way studies are handled in the future to achieve greater commitment.

1. It must be driven from the top.
2. Sell it at the plant manager's level first.
3. Any study must be sold to the managers who have to carry it out.
4. It can't just be an HR thing.
5. HR must organize, support, and improve their timing better; don't just dump things on us.
6. More "hand-holding"; have the requester come with the survey in person.
7. Make the concepts (e.g., transfer) less abstract and more real.
8. Give incentives to participants (pens, key chains, meal chits, money, etc.).
9. There must be more interaction between each level of management; not just issuing directives or dumping paperwork on people.
10. Make it a metric at the highest level that the managing director endorses and reviews.
11. Write it into the formal performance contract.
12. It must be linked to the person's job description and WIIFM ("What's in it for

me?”).

13. More than one HR champion for any organizational initiative.

14. Don't say it was for anyone's dissertation or else they will feel that they are doing someone a favor.

There appear to be several major themes running through the interview data. The most significant was that all the trainees reported having made Kaizen improvements in their areas. The problem, of course, was that they did not see documentation of these improvements as important. As for the issues surrounding transfer, itself, sometimes the trainees and management were in agreement, and sometimes they took opposing views. As in most organizations, when something goes wrong, it is a “knee jerk” reaction to blame a person instead of the (invisible) system. Of the 23 reasons given for the low rates of transfer, 70% were attributed to failures of individuals. The work culture was seen as mostly positive by trainees but negative in its transfer impact by management. They also disagreed on incentives. The trainees overwhelmingly declared them transfer-neutral, while management saw them as a disincentive. They did agree, however, that the observance or breach of most *Core Values* carried no consequence. The trainees indicated that they were preached, but not practiced, by management. Finally, it did not appear in the interviews that management was consciously promoting transfer. The evidence of this is their subordinates went on a two-day workshop (Kaizen) and they did not know what it was about or made any attempt to find out, in addition, it appeared that most were struggling to provide suggestions for improving transfer, as if they had never really given it much thought before.

This concludes the presentation of data from the interviews and available Kaizen usage frequency information. In the next section, the preintervention and postintervention

data will be integrated into a picture of what may actually have taken place and its interpretation.

Discussion

The study data present an interesting and sometimes contradictory view of what took place with the direct transfer results, the design of the study, and the organizational dynamics that influenced both. The objectives of this section are to examine the pieces of the data “puzzle” for what they can reveal about how the stakeholders perceive transfer from their level, then to compare these views to produce a macro picture of what occurred and some alternative explanations of their transfer experience.

Effectiveness of relapse prevention. Starting with the quantifiable evidence, the Intergroup Outcome (Outcome 5), which attempted to compare the control and treatment group on the dimensions of frequency, quality, and maintenance of transfer, was supported on the frequency dimension. Because of the midpoint shift in the data collection strategy, there is no superior-supplied information available for the quality or maintenance variables. The Quality Outcome (Outcome 4) could not be supported based on the fact that the superiors did not rate this area for their trainees, but could be partially supported, as the trainees reported that their improvements were in place and working. Outcomes 1, 2, and 3 could not be supported, due to lack of data.

Of the 12 trainees who completed the Kaizen training, seven were available for interviews. From their self-reports, it appears on the surface that the RP session had a positive and significant impact (44% more improvement events per capita from the RP group) on the usage of the new Kaizen skill, even though two (of three) RP trainees reported a perception that it had “no impact.” This statement may be qualified as “no *conscious* impact,” as there may have been some subconscious prompting to make

improvements. These same two respondents also went on to state, somewhat in contradiction, that they believe that the RP *is* an effective transfer strategy and even talked about its benefits, as corroborated in the *Workshop Evaluation by Participants (RP)* (see Appendix V). In the evaluation they all stated that they would recommend this course to others in their situations. The average score for the three of five trainees who took the quiz was 75%. One inference that can be drawn from this data is that, while they were not aware of the impact of the RP session, they held it as a positive experience that others could benefit from, thus effectively endorsing it. The interview data also revealed that the e-mail reminders sent to the RP trainees helped them to remember their commitment to making improvements and restarted them thinking about identifying improvement opportunities.

There is a plausible alternative explanation for the superior transfer performance of the RP group than just the effect of the RP session itself. The two RP trainees that had the highest number of improvements (three each) were both members of the HR department. In interviews with the director and manager of HR, it came out very strongly that the culture of that unit is very performance-oriented and improvement-oriented (Tracey et al., 1995); indeed it is their mission to be the catalyst for organizational change. Making improvements there is a “way of life.” The leadership there, for the past seven years that the researcher has been involved with the organization, has always stressed transformation. It could very well be the case that these activities would have gone on without the RP intervention, but the researcher got the feeling that it would have not have been as intense without RP. A second alternative explanation could be the Hawthorne Effect that was discovered in studies done by Mayo (1933). The Hawthorne Effect posits that paying any kind of attention (no matter what the content) to staff will result in an

increase in performance.

To the researcher's knowledge, this study is the first usage of the RP strategy to promote the transfer of training outside of the United States. Because strategies are developed or applied in a specific culture, the assumptions that they rest on may or may not hold for a different culture (Bond & Smith; 1996; Lim, 1999, 2000; Turbin, 2001). The West Indian culture is very different from the American culture in a number of aspects--the fundamentally defining one being related to their history of slavery. As outlined in Chapter 1, the ancestors of 80% of the current population where the study took place were either slaves or indentured servants, while the majority of the American population had always been "freemen." This difference has made a significant impact on the social psychology of the two societies. In America, individualism and independence are hallmarks of behavior; in the West Indies, the master-slave relationships are still dominant, albeit in a more socially acceptable form, best conveyed by Eric Berne's (1961) *Transactional Analysis* terminology--"parent-child." Today's local culture is still heavily characterized by one who acts like a parent (master) and one who acts like a child (slave). The key difference in the societies can be seen as independence versus dependency.

How effective can the RP strategy be in a West Indian culture? Does RP require an "independent" individual to be effective? An examination of the key elements of RP may provide some possible explanations. The first requirement of RP is to set behavioral goals. Goal setting may be seen as a leadership function, not a follower function. While RP provided a behavior goal for the Kaizen skill (one improvement per fortnight), it was given by an authority figure (the instructor), and therefore the question of degree of ownership arises. Did they buy into the goal or just comply because that is the expected

or “polite” behavior of the culture (e.g., always smile with your boss, but complain bitterly with coworkers in the lunchroom about what he or she said)?

A second element of RP is building a commitment for the new behavior. The trainees listed the advantages and disadvantage of using the new skill and not using it. Did they just “go through the motions,” as any other classroom exercise, or did their utterances have motivational weight? From the interview evidence, it appears for two of the three that it was just an exercise, as they never looked at their *RP Worksheets* for seven weeks. The other trainee may have been a case of “preaching to the converted.”

A third element of RP involved a discussion of workplace implementation barriers and some strategies to address them. The barriers raised were skepticism and nonsupport of others (many of the Kaizen improvements do not require heavy involvement of others), working with a dysfunctional system that they do not have the power to change, lack of resources (which was not an issue in any of the improvements made by the trainees), being too busy, and fear of making mistakes. Three of the five RP trainees did not work in HR, and none of them mentioned their superior as a possible barrier (in terms of personality, management style, flexibility, or work priorities). The reader’s attention is again drawn to the finding that most trainees believe that many managers do not practice what they require others to observe. While strategies were discussed, skills usually are required to execute them. Some skills needed for the trainee-identified strategies would be time management (too busy), negotiation and selling skills (skepticism and nonsupport of others), and process improvement (knowing what parts of a system can be changed at their level and how to do so).

The final element of RP is *self*-management--not “parent” management. This was probably the most difficult aspect for the local trainees to attempt to internalize. The

narrowest definition of “self-management” could be rewarding or punishing one’s self if goal conditions are not met in a specified time period through a predefined regimen. This strategy makes the assumption that the trainee is, after having made a commitment, willing and able to take responsibility for their actions, especially actions that are not directly rewarded or even recognized, are not required, or sometimes are seen by the system as a distraction to core duties. The local culture is full of examples where the “child” refuses to take responsibility: the teacher, not the student, is responsible for learning; the doctor, not the patient, is responsible for their health; the boss, not the employee, is responsible for their work or area; the politicians, not the people, are responsible for the national agenda. These types of relationships have been described by Hofstede (1986), as being characteristic of a large “power distance” culture, that is, where authority figures direct or guide the common man. The RP participant must have a very high level of commitment to practice self-management, especially in demotivating organizational cultures that still treat personnel as “cogs” instead of valued employees.

Given the discussion on the RP strategy and all its difficulties, the global economy and modern business practices still demand empowered and thinking individuals as the world is now too complex and fast changing for the parent/leader to know everything and give all directives. The recommendations section will offer some suggestions to better adapt the RP process for a dependency culture.

Transfer factors. All of the interview stakeholders were asked about factors that influence the rate of transfer. The trainees and superiors were asked about the same nine factors, while the key managers had an opened-ended question. The original list of factors in the baseline data collection surveys had identified 38 items. The nine factors selected for the interviews appeared to have had the greatest impact, given the conditions

under which the study was conducted. At the end of the discussion on the data that emerged from the interviews, the baseline findings will be integrated to form a holistic transfer picture at the organization.

Starting with the work culture, the trainees saw it as overwhelmingly positive toward transfer. No specific definition was given for “work culture” but the researcher got the impression that they interpreted it as the “official line,” and if so, their responses would be consistent with this meaning. It appears that the superiors interpreted it differently, as in “the way things get done around here,” which may be a more widely accepted definition (closer to Schein’s 1985 definition stated in Chapter 2). In that light, the response varied by department; in other words, the values that the particular unit leader stressed seemed to be the key. Key managers additionally noted that some departments have antichange cultures or at least an unsupportive work environment.

On the question of the quality of the relationship between a trainee and their superiors, the trainees’ response varied with the personality or leadership style of their superior. The superiors both saw themselves as a positive influence on their subordinates, which may be expected but not necessarily true, as people tend to view themselves in a positive light (Podsakoff & Organ, 1986; Thornton, 1980), which is at variance with some subordinates’ views. The key managers noted that, many times, the boss demands that things be done their way or does not actively support the nurturing of the new skills. In addition, they cited that the boss either may be unaware of what their subordinates are learning or may not have that particular skill themselves. The literature has signaled these factors (posture of the superior) as possibly the most influential of all transfer factors (Peters & O’Connor, 1980; Rouiller & Goldstein, 1993; Tziner et al., 1991; Wexley & Baldwin, 1986). However, it did not appear that during the preintervention data collection

phase that the superior's behavior was a significant problem, as positive responses provided by both trainees and supervisors did not indicate there was an issue. At that point, the trainee and instructional issues appeared to be critical. In light of the postintervention data, namely, the qualitative data and actual behavior of the population under study, it appears that macro-organizational issues and workplace culture, were the more powerful forces that inhibited transfer.

On the superior's work priorities and perceptions of these priorities by the trainee, the trainees were split, possibly indicating that the substantive, routine tasks take priority over any improvement activity. This could be true, especially in the light of units that are short-staffed or working under a backlog situation, or where it is perceived that there are no rewards for making improvements. In fact, one trainee remarked that sometimes innovators are considered troublemakers by insecure superiors. The superiors were also split on their responses, like the trainees; but when asked about the trainees' perception of these priorities, the superiors responded more positively.

Trainees saw their relationships with coworkers as mostly neutral toward their practice of Kaizen, with two indicating a positive influence. The superiors' responses were totally positive. Key managers mentioned that at times there can be negative reactions from stakeholders. Since transfer is also a social act (Huczynski & Lewis, 1979), it works best when aligned with group norms.

The amount of time in their workday to devote to improvement activities was not all seen as negative (not enough); half said it was either neutral or even positive. This is plausible and closely resembles the old adage that: "If you want something done, give it to a busy person." Another interpretation is that, in contradiction to earlier claims of being too busy, there are chunks of time in the workweek that could be devoted to

improvement activities. Indeed, much of their busyness is attributable to having to deal with dysfunctional systems (“putting out fires”). Theoretically, the more time they use making system improvements, the more overall time they will “free up.” The key managers saw heavy workloads as a causative factor here, effectively crowding out improvement time. The resources required to effect improvements was not seen as a factor by any group.

In terms of self-motivation, all of the trainees saw themselves as high in this regard, as did their superiors. When it came to the perception of continuous improvement being part of their jobs, the trainees were split. The negative trainees took a legalistic posture, declaring that it was not part of their job description and is not directly a *Core Value*, although a case could be made for it being driven by the *Core Value*, “We take ownership [of our areas]!” Superiors added the distinction that senior staff, more so than junior staff, sees improvements as part of their job function. The key managers noted the “ownership” issue and the fact that the trainees are not, or do not feel, authorized to perform these acts. This completes the discussion of the nine explicit factors contained in the participants’ interviews. Next, any of the key managers’ opened-ended comments that have not been noted to this point will be examined.

The majority of the key managers’ comments rotated around two themes: training itself and trainee characteristics. They noted that training objectives must be aligned with workplace objectives--that is, not generic or “off the shelf.” This leads directly to the second point in that, if instruction is generic, it places an additional cognitive load on staff to “translate” or adapt what they are learning to workplace conditions (Thorndike & Woodworth, 1901). Every obstacle presents another point where the transfer process can break down (see Figure 2).

Concerning the ability of the trainee to learn (Porter & Lawler, 1968), the key managers noted that some trainees may not see the relevance of the content or agree with it (and their motivation may be affected negatively), they may be unable to learn it in the classroom, and if they learn it, they may have trouble internalizing or remembering it. At work, the trainee may not be motivated, or they may be risk-adverse or habit-bound and reluctant to get out of their “comfort zone.” Finally, there may not be an opportunity to use the new skill. In all, the key managers identified 13 of the 38 transfer factors, or 34%.

Tables 3 to 7 in Chapter 2 outline the preintervention survey data from the last section of the *Previous Training Transfer Profile* that the superiors completed and the last section of the *Trainee Transfer Perceptions* survey taken by potential Kaizen trainees. Of all the 38 factors, the trainees rated 30 as having a positive impact on transfer in general, seven being neutral, and only one as negative, which was “interruptions/missed sessions during training.” There could be seen as a partial contradiction, however, on the factor “incentives/praise for new skill.” The trainees had rated it positively, but in the interviews some claimed that there was no reward for making improvements. Another possible contradiction was “quantity of trainees’ workload,” which was rated as more a positive than negative factor. Many interview responses claimed that, for most, time was a problem or they were too busy. A final seeming contradiction was “supervisor modeling of new behavior,” which was rated as positive; but in the interviews, when relating to values, they stated that the superiors did not “practice what they preached.” Possibly the trainees were thinking of technical skills, rather than interpersonal or generic organizational skills, when rating this item. Collectively, these contradictions may have occurred because the trainees were rating the preintervention transfer factors in a general sense and not based on any factors they

actually observed. Better wording of the instrument instructions may have prevented this problem.

The superiors' responses were usually much lower than trainee responses for the same item. They rated only 15 as positive (50% lower than the trainees), 19 as neutral, and four as negative. This difference may be accounted for in two ways. It is possible that the trainees were misinterpreting the instructions for this section. The intention was to see how these factors have impacted transfer in the *past* at their organization. They may have been interpreting the items as if they are generically or generally positive or negative forces. A second explanation is that, while the trainees tended to view the factors more from a personal viewpoint, the superiors, because of their educational and experience level, had a more managerial (organizational) perspective of the transfer dynamics. The trainee contradictions, mentioned before, also tend to support this inference.

The superiors tended to rate transfer factors in areas that they are supposed to control (i.e., work environment and stakeholders) and rated neutral or negative those areas they do not directly control (i.e., instructional design and trainee characteristics). In fact, of the four negative factors identified by the superiors, two were about instruction (assessment and interruptions to training sessions) and two were about the trainee (personal problems and unresolved work issues). The researcher has noted over the years that, in the local business culture, when something goes wrong, the superior immediately tries to identify the "guilty party," thus making the tacit assumption that most problems are "people problems." Recent research (Watkins & Kaufman, 1996) has provided evidence that up to 80% of all organizational problems are actually caused by dysfunctional systems. These systems, in turn, force the staff into either dysfunctional behavior or poor results, which is where the problem manifests itself, and therefore is

often misdiagnosed.

Organizational core values. The impact of the organization's core values and core value training on transfer will now be examined, as they are germane to the transfer dynamics. The organization's four *Core Values* are:

1. We take ownership!
2. We build mutually beneficial relationships!
3. We deliver results!
4. We care for country!

As mentioned earlier, all employees received training in 2000 and 2001 in core values under headings of the following six skills: problem solving, creative thinking, self-motivation (empowerment), self-discipline, interpersonal communication skills, and relationship skills. These values were formulated in the late '90s as a reaction against the tendency of the bonus system to promote an "every man for themselves" atmosphere or playing the "numbers game." It is interesting to note that many of these values are required for the successful execution of Kaizen skills, in particular, and transfer in general, hence their discussion in this section. Table 10 outlines their relationship.

The views of all the stakeholders were very divergent on the role, operation, and impact of *Core Values* and its linkage with reward systems. The first item asked whether, if one practices the *Core Values*, they are rewarded by the system. From the trainee's perspective, all six were quick to point out that there is *no* reward; the superiors, on the other hand, said that only management is rewarded, as unionized staff come under a different compensation scheme. Key managers had the widest set of viewpoints. Some of the remarks were that the values: are not rewarded, are measured but not rewarded, are spot-rewarded, or are rewarded via a good appraisal report (which does not produce a

Table 10

Core Values, Kaizen and Transfer

Core Values or Skill	Kaizen	General Transfer
Ownership	See making improvements as part of their job	Apply newly learned skills
Self-Motivation	Identifying areas for improvement without being directed	Recognizing occasions where the new skill can be applied
Self-Discipline	Making time for improvement activities and persevering until the end	Managing all the distractions and barriers against practicing the new skill
Relationships & Interpersonal Communication	Working with others to solve problems and implement solutions	Transfer is a social act
Problem Solving	This is the core Kaizen skill	Applying new skills can be problematic
Creative Thinking	Produces Kaizen solutions	Linking the classroom and workplace environments
Results	Implementation of solutions	Performance improvement in areas that training has targeted

bonus, but may be used for promotion in the future). The confusion over rewards by management, and lack of reward as seen by trainees, places Kaizen specifically and transfer in general at risk. New skill application would not be systemic, but would vary from individual to individual, based on their personal characteristics. Add to this the fact that a majority of trainees say that their superiors (and managers in general) do not practice the *Core Values*, and there is a serious credibility problem. Modeling is one of the most powerful forms of learning, and if the leaders are only talking it, the trainees will take their cue from behavior. It has been reported that Ralph Waldo Emerson once said, “What you are speaks so loud, I can’t hear what you are saying.” If transfer is driven, in part, by the *Core Values* as outlined in Table 10, the missing part of the organizational strategy could be the failure to hard-link rewards to values.

The trainees were next asked how their superiors promoted *Core Values*. Some positive responses were: motivational e-mails, discussions, and modeling. Conversely, the majority held that “they expect us to do it but don’t practice it themselves.” Their explanation was that the managers were “greedy” for bonuses, and if the staff practiced the values, there would be higher results and, hence, higher bonuses. Superiors saw themselves in a positive regard and said they used briefings, discussions, and modeling to promote the values. Some key managers stressed their modeling, and using the values as points of application emerged naturally. Other managers thought that, while the values were true, they were not useful and preferred their own framework for imparting them. Again, there were no self-indictments of the superiors or managers about their own behavior, yet there was a large variance in how they are perceived by those who report to them. It appears that the value system and the way it is implemented was seen as another HR imposition, not a tool to achieve higher performance. The question becomes, who

“owns” the values, if anyone?

Stakeholder interactions. The study was designed (and superiors instructed) such that the superiors should know its purpose and their role, but not intervene positively or negatively to affect the trainees’ performance, as intervention would add another dimension of variance. That is, some superiors would have encouraged their trainees, while others may have been negative about the Kaizen skills (as distractions to core duties). Most trainees reported that they thought their superiors did not know much about the study, and most said there were no interactions about the course or its application. The superiors reported that they had no communication with their trainees, as they were too busy. If the interview sample is representative of what went on with all trainees, then that helped to strengthen the validity of the data.

Data collection issues. One of the major problems with this study was the data collection process. It would appear from the comments that the orientation of the study to the superiors was not clear or adequate, especially for those who could not attend the launching meeting. Many came away with the impression that they would be doing the researcher a favor by cooperating. The benefits of the results for the organization were not sold strongly enough. The buy-in was not present from the beginning.

The researcher could not interact with subjects directly, but only through the mediation of the HR officers, and this arrangement presented another obstacle. The HR department is said to be short-staffed already, and each member has many routine activities plus special assignments or miniprojects. While the leadership stressed the importance of the study, the normal duties seemed to have more priority. There was no reward for staff members who assisted in the study, and there was no consequence if full effort was not forthcoming. The researcher wants to stress, though, that he believes the

HR staff were making a significant effort most of the time to make the study a success.

The HR officers' task was made more difficult because most of the superiors had little commitment to the study. They saw it as a distraction from the core duties to which their bonus is tied. There was really no direct benefit for participation and no consequence for nonparticipation. This trend was evident in collection of the preintervention surveys, where, after a half-year had passed and even with occasional reminders, there were still outstanding instruments. For the superiors' posttraining survey, the compliance was zero. The recommendations section will outline strategies for improving this situation for future studies and evaluations.

Trainees also had problems with documentation. While they had a much better compliance record for preintervention surveys, there was almost zero compliance after training. The researcher believes, and is supported by the interview data, that when a task is given to an employee or manager by an outsider rather than someone's superior or the HR department, the compliance will be lower.

After the Kaizen training intervention, the trainees were supposed to document improvement events. They said they did not do it because they either forgot or were too busy. The one that did remember said no one would do anything with the information, so why write it in the first place? The superiors' view on the matter was that it was not important to them. The key managers, who answered generically (as they had no firsthand knowledge of the situation), repeated both the trainees' and superiors' reasons and added that paperwork on the whole is not seen as a rewarding task and that there is compliance with only standard, routine documents (which have consequence if not completed).

Transfer as an organizational issue. The final section of the discussion will focus

on transfer as an organizational issue and conducting of studies in general. Both the superiors and key managers overwhelmingly saw poor transfer rates as a significant organizational issue. Their personal remedies (things that they could do immediately), as outlined in the results section, focused on what they could do with the trainee, such as briefings, empowerment, support, coaching, opportunities for usage, and having the trainee share their new knowledge, which generally fall in the “posttraining” category of strategies (see Figure 3). From the interviews, it appeared that many of the managers are not consciously making an effort to promote transfer in their units, possibly holding the silent assumption that if someone learns something, they will automatically practice it.

When asked what changes could be made in the system, many saw the HR as having to take the lead in the initiatives they enumerated, like aligning incentives to desired behaviors and tailoring instructional design that is relevant, work (task) related, well marketed, and just-in-time. The other batch of suggestions touched on job design, such as having standards that demand use of the new skill, redesigning the job itself, and having flexibility to place staff where their interests and skills lie.

While these transfer strategies are useful, they leave out large areas that could also promote transfer, as suggested by the literature. Some of these are what superiors can do before and during training, not just after the fact. The focus on the trainer was mostly in the design of instruction. The way in which training is delivered has a major impact on transfer (Ellis, 1965; McGehee & Thayer, 1961; Wexley & Thornton, 1972). If the skill is not learned in the classroom first, it cannot be transferred. Locally, the researcher has observed that a majority of trainers and lecturers do not have training in instructional design or teaching methods. Instead of instruction, what they really are doing are presentations, which is only the front end of instruction. Trainers can also play a

posttraining role that is not appreciated by many managers yet. There is also a pretraining and during-training gap in the trainee's role. While they are required to learn the content in the classroom, there are transfer enhancing activities they could also be practicing there. While training is being designed, there are also opportunities to get the trainee involved.

In summary, it appears that the instructional and trainee transfer factors, first thought to be dominate in their impact, had given way to organizational culture (especially as expressed through the behavior of stakeholders close to the trainee) and lack of incentives and consequences, as having the most influence on transfer. The next section will offer recommendations that address these and other transfer issues.

Recommendations

Because of the numerous themes that the results chapter has brought to light, the recommendations section will be broken down into following subsections:

1. Improvement of the Relapse Prevention (RP) approach
2. Limitations and improvement of the study design
3. Direct strategies for improving transfer of training
4. Organizational transfer-enabling strategies
5. Directions of future transfer research

Improvement of the relapse prevention (RP) approach. The essential transfer-of-training paradox, from an organizational perspective, can be summed up as: *The very system that is assessing needs and formulating and sending trainees on courses is the same system that is frustrating the trainee's attempts to transfer those skills once back in the workplace.* To the degree that this is occurring, the system is "unconscious" or disconnected. The broad solution must be the integration of every aspect of

organizational behavior, as the system is at odds with itself. Another name for that approach may be: good management practices executed by qualified leadership and management. Many of the transfer problems might be eliminated if the organization were run differently. It appears that most change is resisted by those asked to change, even when they know it is beneficial or in their best interests. Using new skills falls into this category. With any change initiative, a support structure or “scaffolding” should be put into place to overcome the systemic forces that enforce the status quo.

The RP session was taught as close to Marx’s RP model (1986) as possible. Given the discussion of its weaknesses, as delivered in the local culture, the following recommendations are made:

1. The behavioral goals formulated in the RP session must be linked to (or better, driven by) strategic or operational goals that are generated by the leadership of the organization and embodied in its performance standards and rewarded explicitly (at least in the beginning) when practiced.
2. Much more time must be spent on getting trainee buy-in or commitment.
3. Instead of relying on trainees to foresee possible barriers to transfer, which is a hit-and-miss process, they should be presented with a list of standard barriers which they either rate or prioritize.
4. Given the five to 10 most important items on the list suggested in point 3, identify which ones are skill-dependent, and design a separate program to deliver those skills as soon as possible.
5. Create and rely more on organizational (rather than contrived) trainee-created incentives.
6. Make the initial RP session a full day.

7. Create some system to remind the trainee of their goals and commitment, perhaps using electronic technology to automatically provide reminders at predefined intervals.
8. The RP session must be done in the context of a wider program of general transfer promoting strategies (explained later).

Limitations and improvement of the study design. The study was designed to overcome the weaknesses of previous studies on transfer. The study had two major strengths. One was that it chose a training output behavior that was highly visible or observable (not a mental process), and the other strength was that it used real supervisors in an actual work setting (not a clinical setting using university students). The critical weaknesses were in data collection, both in survey collection and in subject-generated documentation. Therefore, the following study design recommendations are proffered:

1. Most of the outcome hypotheses were dependent on feedback from the superiors, none of whom responded, so write them in such a way that the data can come from a different valid source.
2. Design the instruments to look more user-friendly, although they already were designed with boxes to tick or numbers to circle to minimize writing.
3. Combine or reduce the number of instruments with fewer, but more critical, items.
4. Allow the researcher to directly contact, distribute, and collect data collection instruments after everyone has been oriented, instead of having to work through the HR officers, with their multiple tasks and priorities.
5. Where HR assistance is necessary, use the *Dissertation Study Checklist for HR* (prepared late in the study) from the beginning to provide a “big picture”

instead of giving HR piecemeal instructions, thus reducing confusion and reliance on memory.

6. Where possible, deliver the instrument in person and wait for the respondent to complete it; and when not possible, offer incentives or small tokens that will encourage compliance; utilize their intranet and digital on-line forms to complete instruments.
7. Instead of having the trainees report each time they make an improvement, they should be given a sheet where they can record it, which will be picked up at the end of the data collection period.
8. Make the orientation session(s) all face-to-face to get commitment and to answer critical questions. For those who cannot be present, use videotape technology to keep them informed of the critical aspects of the initiatives.
9. Have follow-up sessions or e-mail reminders throughout the study, advising participants of the study's current stage and the participant's role.
10. Set the organizational stage before orientation so that key managers and participants see how the study fits into the overall scheme and will benefit the organization and them individually. Also demonstrate the relationship to the vision, mission or values explicitly; derive or attach the initiative to a strategic or operational goal; and show them the linkage between it and their bonuses.
11. Do not tell management and staff that the researcher is conducting the study as part of their doctoral requirements until after the study is complete, yet still comply with all IRB (poststudy) notification requirements.

Direct strategies for improving transfer of training. The purpose of the study was to utilize one strategy (Relapse Prevention) to assess its impact on improving the transfer

of training rate. In this section, some other direct strategies to boost transfer rates will be enumerated. “Direct” strategies means that the only purpose of the activity is to, ultimately, enhance transfer. In the subsequent section, additional and enabling organizational strategies will be presented. The majority of these strategies have been explained in detail in Broad and Newstrom’s (1992) landmark work entitled *Transfer of Training: Action-Packed Strategies to Ensure High Payoff from Training Investments*.

BEFORE TRAINING:

1. The trainer or course designer should conduct a needs assessment to ensure that the problem is solvable by training and not a systems problem. The supervisors and affected trainees should be involved where feasible.
2. The trainer should use a systematic instructional-design process and involve the supervisors and targeted trainees where feasible.
3. “Teaching for transfer” techniques and activities should be built into the instructional design to boost transfer rates.
4. Where there is no previous involvement of the superiors and trainees, the course designer should brief the superior and trainees about the learning objectives and, if time permits, about major content and methods.
5. The supervisor should have a pretraining briefing with their trainees to include the course objectives, relation of the objectives to the job, and expectations for use when the trainees return.
6. Where the supervisor does not have the course skill and needs to be a role model for the trainees, they should take the course before their trainees take it.

DURING TRAINING:

1. The instructor should utilize the “teaching for transfer” techniques and

provide adequate practice and feedback time.

2. The trainee should actively participate and either maintain an applications sheet for the new skills, create job aids that will remind them, or write action plans on how they will use the new skill.
3. The supervisor should minimize interruptions and work demands on the trainee while in the classroom and should monitor attendance.
4. The supervisor should also ask how it is going or even show up for a short time during the sessions; if they have the skills, they can even cofacilitate the delivery of a portion of the course

AFTER TRAINING:

1. Supervisors should debrief their trainees and find out what they learned, how they can apply it, and what assistance they need from the supervisor.
2. Supervisors should provide opportunities to use the new skills and or adjust the trainees' workloads so that they are not pressured into relapsing into their old behaviors.
3. The supervisor should also model, monitor, coach, encourage, and even reward the trainee, where possible.
4. Trainees can prepare and present a report of what they learned or hold mini instructional sessions to teach coworkers.
5. Trainees could prepare a contract of several behaviors that they will strive to implement and what support they need from their superior. Both can sign the document and review the trainee's progress periodically.
6. Electronic technology can be used to automatically remind or refresh the trainee in critical aspects of the content they are supposed to apply.

7. The trainer can evaluate on-the-job performance and identify system or stakeholder barriers and make recommendations.
8. Finally, the trainer can offer refresher or content-related problem-solving courses to remind and assist trainees in implementing the new skills.

Organizational transfer-enabling strategies. The final section of recommendations is directed at the organization that hosted the study, but is presented in a way that is generalizable to other enterprises. The overarching principle is that the organization must have shared strategic direction, and the culture and every policy, process, activity, and other system component must be aligned with that direction and be compatible.

1. The strategic planning process and its product, the strategic plan, should be have the commitment of all staff and be connected to, or enacted in, everyday tactical decisions.
2. All decisions ultimately should be made with reference to and support of the declared strategic direction.
3. When major change initiatives are being identified, the parties who will be implementing them should be involved as early in the process as possible to promote buy-in and commitment and quality input.
4. When any major change initiative is being developed, it must specify how it will be monitored (measured), reported, evaluated, and scaffolded (implementation support structures).
5. While one could argue that practicing the core values should be directly rewarded, they can also be seen as means to an end called results.

Unfortunately, one can arrive at results in violation of values; therefore,

results do not, by their accomplishment, necessarily imply that values were utilized. There must be a mechanism to ensure that values are being practiced, such as a multisource (“360 degree”) appraisal system, and this system must be hard-linked to compensation and/or reward schemes.

6. Reward systems should recognize team-level or unit-level performance--not just individual performance, which has been seen as being counterproductive at times (“every man for themselves”).
7. Values should be written in a way that they do not inadvertently come into conflict with each other. Instead of having “We build mutually beneficial relationships!” and “We get results!” separately, they could be combined in a manner to demonstrate their critical relationship, as in, “We get *sustainable* results by building mutually beneficial relationships!” (Anyone can get short-term results by abuse of staff, and this indeed was reported in the interviews.)
8. For day-to-day routine operations, there must be job performance standards (learning objectives should be linked to or worded like these), a mechanism to measure and report performance, and a process that makes adjustments to the system when there is a gap between desired and actual performance.
9. Instead of putting everyone through RP sessions or other remedial programs, the organization should identify and minimize trainee implementation barriers instead of putting this inordinate burden on those who are least equipped (by education, motivation, experience, or rank) to deal with them.

Directions of future transfer research. Transfer of training, as has been seen, is a very broad concept that encompasses hundreds of variables. To discuss the direction of future studies for all of that territory would be beyond the scope of this dissertation, and

therefore the suggestions will be limited to Relapse Prevention. It must be remembered that, if the organization was not operating at cross purposes, RP might become redundant, except for those issues that are internal to the trainee.

RP may be very effective in one culture, neutral in another, and may be counterproductive in a third. In using RP in non-American cultures, more studies need to identify the RP-sensitive dimensions of culture and how the RP strategy and content interact with each culture. With the many cultures throughout the world, perhaps some archetypes can be classified, and RP approaches customized, for these cultural models.

The RP session represents a significant amount of time--in this case, almost 50% of training time. Future studies may want to “strip down” the full RP model and try to determine the “active ingredients” that are necessary to make it effective and then produced a condensed version. The powerful attributes and affordances of instructional technology could be more creatively employed, perhaps also adding an on-line component, in addition to, the face-to-face sessions.

Finally, studies need to focus on the type of trainee who would benefit from an RP approach. As the study revealed, some trainees did not remember or use the RP process consciously and others cannot or will not apply self-management techniques; this could be especially true at the lower levels of the organization.

Dissemination

The results will, of course, be reported primarily through the publication of this applied dissertation, available in a digital format and accessible to all researchers. A shorter, journal article version could be written for such journals as *Personal Psychology*, *Journal of Applied Psychology*, *Organizational Behavior and Human Performance*, *Human Resources Development Quarterly*, and *Training and Development Journal*. A

softer, more popular version could be written for magazines such as *Training* or *Training and Development*.

A presentation could be made at the University of the West Indies Faculty of Education and also at HRMATT, the local Human Resources Management Association. It will also be posted on the researcher's website, which can easily be found with any search engine.

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Appendix A

Previous Training Transfer Profile

<i>Previous Training Transfer Profile</i>			Date:
Name		Job Title	
Location	o <input type="checkbox"/> <input type="checkbox"/> o <input type="checkbox"/> o <input type="checkbox"/>	o Head Office	
Department		Phone	

Instructions: To be completed by the trainee's superior. Read each section and complete. There are four pages total. This information will go to the consultant and will not be retained or used by HR for any functions such as promotions, discipline, training, etc.

Names of your subordinates who are <u>supervisors</u> (at least 4, if possible) that took the five-day <i>Core Values Training</i> course.	
1.	2.
3.	4.
5.	6.

(#)	Item	Response					
1	Please indicate which year (most of) your supervisors took this course.	Title: <input type="checkbox"/> s <i>Core Values Training</i>					
		Year: o 2000 o2001			Duration: 5-Days		
2	Learning objectives from the above course.	To build or improve the following core, generic organizational skills for all employees: <ol style="list-style-type: none"> 1. Creative Thinking 2. Problem-Solving 3. Interpersonal Communications 4. Self-Discipline 5. Self-Motivation/Empowerment 6. Relationship Skills 					
3	For each objective (OBJ) above, rate performance relative to it for each staff member who is listed by number in the first column (☺). Be sure that the number matches the staff name at the top of the page. Use the scale provided. An example is provided below to get an idea of what information is being sought. "Frequency" means how many times did they attempt to use the <u>new</u> skill when it was appropriate for them to do so? If your answer to "Frequency" is zero, then give "Quality" a zero also.						
	FREQUENCY (F)	QUALITY (Q)		Example:			
	0 = Does not do it 1 = Does it sometimes 2 = Does it about half the time 3 = Does it much of the time 4 = Always does it	0 = Does everything below standard 1 = Partially below standard 2 = Meets the standard 3 = Does it above standard 4 = Model behavior for others to follow		Objective: Trainee will use skills to develop and maintain good relationships. Frequency (F): how frequently do they try to use the <u>new</u> relationship skills? Put a number (0-4) in the "F" column for each person. Quality (Q): on average, how well do they perform the <u>new</u> relationship skills? Put a number (0-4) in the "Q" column for each person.			
		OBJ-1	OBJ-2	OBJ-3	OBJ-4	OBJ-5	OBJ-6

	Creativity		Problem-Solving		Communications		Self-Discipline		Self-Motivation		Relationships	
Ⓒ	F	Q	F	Q	F	Q	F	Q	F	Q	F	Q
1												
2												
3												
4												
5												
6												

4	<p>In the next item we are looking for performance in a particular area. This area is in subordinate-initiated, improvements to procedures or processes in which they have or can easily get approval to make changes in the <u>way</u> things are done. These improvements (widely known as Continuous Improvement) usually involve simple problem-solving.</p> <p>Some examples are putting a checklist up in an area where staff are either unsure of make a lot of mistakes when doing an activity; redesigning an old form to make it more useful; putting up signs to guide visitor and staff better; documenting procedures so they are easier to teach to staff; labeling or coding things; identifying areas where waste is occurring and training, or notifying staff of new procedures, etc. This behaviour is in contrast with blaming or disciplining staff, when the system is mostly at fault.</p> <p>Given this understanding, please rate the following “Continuous Improvement” behaviours using the same scale used on the previous item. “They” indicates your subordinates that have supervisory roles in your division/department. Remember, this is an average of all your supervisors.</p>
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FREQUENCY (F)	QUALITY (Q)
0 = Does not do it	0 = Does everything
1 = Does it sometimes	below standard
2 = Does it about half the time	1 = Partially below standard
3 = Does it much of the time	2 = Meets the standard
4 = Always does it	3 = Does it above standard
	4 = Model behavior for others to follow

No	CONTINUOUS IMPROVEMENT OBJECTIVES	FREQUENCY (F)	QUALITY (Q)
A	They see making improvement efforts on how they do activities (procedures, techniques, & tools) as part of their job.	0—1—2—3—4	0—1—2—3—4
B	On their own, they are able to identify areas that need to be improved (that they can do something about at their authority level).	0—1—2—3—4	0—1—2—3—4
C	On their own, they come up with good solutions to problems or make improvements to an existing system.	0—1—2—3—4	0—1—2—3—4
D	They are able to work well with others (teammates, coworkers, superiors, people from other departments, etc.) to help in either planning, implementing, or accepting improvements.	0—1—2—3—4	0—1—2—3—4
E	They document or create “job aids” (e.g., checklists, memos, signs, lists, etc.) to help others remember or	0—1—2—3—4	0—1—2—3—4

	practice the new method, or be aware of the new situation.		
--	--	--	--

5	Please tick the degree to which factors in the following list generally influence the implementation or use (also called transfer) of any new skills learned through training when <u>supervisors</u> get back on the job. Please use the following scale:			
	(--)	Very negative influence	(++)	Very positive influence
	(-)	Somewhat negative influence	(+)	Somewhat positive influence
	(0)	No influence (neutral)	(?)	Do not know--or--does not apply in our situation

Area	Transfer Factor	(- -)	(-)	(0)	(+)	(+ +)	(?)
Organizational	Organization-wide work culture						
	Organizational stability (change/growth/mergers)						
	Clarity of strategic direction						
	Support of top management team (policies, leadership, monitoring, etc.)						
	Appraisal system (for individuals)						
Instructional	Class times and location						
	Instructional performance objectives						
	Quality & scope of course content						
	Level of practice and feedback in classroom						
	Quality of instructional design						
	Delivery of instruction						
	Trainee assessment in the classroom						
	Interruptions/missed sessions during training						
Trainee	Trainee's level of empowerment/ confidence toward the new skill						
	Trainee's feeling about relevance of the new skill						
	Trainee's potential to perform new skill						
	Discipline of trainee						
	Level of trainee satisfaction with the new behavior						
	Personal (non-work) problems of the trainee						
	Level of retention (memory) of learning by trainee						
	Unresolved work issues with the trainee						
Work Environment	Quality (completeness, updated, availability) of job procedures						
	Quality of job description/expectations						
	Quality of workflow						

	process(es) (policies, regulations, rules, functionality, etc.)						
	Quantity of trainee's workload						
	Consequences (+ or -) for new skill						
	Incentives/praise for new skill						
	Opportunities to use new skill						
	Departmental performance standards						
	Resources available to use new skill						
Stakeholders	Supervisor awareness of training content						
	Supervisor input into training content						
	Support of immediate supervisor						
	Supervisor modeling of new behavior						
	Awareness of training content by coworkers/teammates						
	Support of coworkers/teammates						
	Pre-training support by trainer						
	Post-training support by trainer						

Appendix B
Trainee Transfer Perceptions

<i>Trainee Transfer Perceptions</i>			
		Job Title	
Location	o <input type="checkbox"/> <input type="checkbox"/> o <input type="checkbox"/> o <input type="checkbox"/>	o Head Office	
Department		Phone	
Superior's Name		Job Title	

Instructions: *To be completed by the trainee. Follow directions in each section. This information will be kept by the consultant and will not be retained or used by HR for any functions such as promotions, discipline, training, etc.*

1	<p>In the following item we are looking for your assessment of performance in a particular area. This area is in self-initiated, improvements to procedures or processes in which you have or can easily get approval to make changes in the way things are done. These improvements (widely known as Continuous Improvement) usually involve simple problem-solving.</p> <p>Some examples are putting a checklist up in an area where staff are either unsure of make a lot of mistakes when doing an activity; redesigning an old form to make it more useful; putting up signs to guide visitor and staff better; documenting procedures so they are easier to teach to staff; labeling or coding things; identifying areas where waste is occurring and training, or notifying staff of new procedures, etc. This behaviour is in contrast with blaming or disciplining staff, when the system is mostly at fault.</p> <p>Given this understanding, please rate the following “Continuous Improvement” behaviours using the scale below. “Frequency” means how many times you do it, when it is appropriate to do so.</p>		
	FREQUENCY (F) 0 = Do not do it 1 = Do it sometimes 2 = Do it about half the time 3 = Do it much of the time 4 = Always do it	QUALITY (Q) 0 = Do everything below standard 1 = Partially below standard 2 = Meets the standard 3 = Do it above standard 4 = Model behavior for others to follow	Example: Objective: <i>Employee will select proper form and complete all requested information with 100% accuracy.</i> Frequency (F): how frequently is the correct form selected? Circle a number in the "F" column. Quality (Q): on average, how accurately is the correct form filled-out? Circle a number in the "Q" column.
No	CONTINUOUS IMPROVEMENT OBJECTIVES		
A	You see making improvement efforts on how you do activities (procedures, techniques, & tools) as part of your job.	0—1—2—3—4	0—1—2—3—4
B	On your own, you are able to identify areas that need to be improved (that you can change with your level of authority).	0—1—2—3—4	0—1—2—3—4
C	On your own, you come up with good solutions to problems or make improvements to an existing system.	0—1—2—3—4	0—1—2—3—4
D	You are able to work well with others (teammates, coworkers, superiors, people from other departments, etc.) to help in either planning, implementing, or accepting your improvements.	0—1—2—3—4	0—1—2—3—4
E	You document or create “job aids” (e.g., checklists,	0—1—2—3—4	0—1—2—3—4

	memos, signs, lists, etc.) to help others remember or practice the new method, or be aware of the new situation.		
--	--	--	--

5	Please tick the degree to which factors in the following list generally influence the implementation or use (also called transfer) of any new skills learned through training when <u>supervisors</u> get back on the job. Please use the following scale:			
	(--)	Very negative influence	(++)	Very positive influence
	(-)	Somewhat negative influence	(+)	Somewhat positive influence
	(0)	No influence (neutral)	(?)	Do not know--or--does not apply in our situation

Area	Transfer Factor	(- -)	(-)	(0)	(+)	(+ +)	(?)
Organizational	Organization-wide work culture						
	Organizational stability (change/growth/mergers)						
	Clarity of strategic direction						
	Support of top management team (policies, leadership, monitoring, etc.)						
	Appraisal system (for individuals)						
Instructional	Class times and location						
	Instructional performance objectives						
	Quality & scope of course content						
	Level of practice and feedback in classroom						
	Quality of instructional design						
	Delivery of instruction						
	Trainee assessment in the classroom						
Trainee	Interruptions/missed sessions during training						
	Trainee's level of empowerment/ confidence toward the new skill						
	Trainee's feeling about relevance of the new skill						
	Trainee's potential to perform new skill						
	Discipline of trainee						
	Level of trainee satisfaction with the new behavior						
	Personal (non-work) problems of the trainee						
	Level of retention (memory) of learning by trainee						
Work Environment	Unresolved work issues with the trainee						
	Quality (completeness, updated, availability) of job procedures						

	Quality of job description/expectations						
	Quality of workflow process(es) (policies, regulations, rules, functionality, etc.)						
	Quantity of trainee's workload						
	Consequences (+ or -) for new skill						
	Incentives/praise for new skill						
	Opportunities to use new skill						
	Departmental performance standards						
	Resources available to use new skill						
Stakeholders	Supervisor awareness of training content						
	Supervisor input into training content						
	Support of immediate supervisor						
	Supervisor modeling of new behavior						
	Awareness of training content by coworkers/teammates						
	Support of coworkers/teammates						
	Pre-training support by trainer						
	Post-training support by trainer						

Appendix C

Trainees' Improvement Opinions

“Trainees’ Improvement Opinions”



INSTRUCTIONS:

1. The attached survey attempts to better understand your feelings about making improvements in your unit; it is not a test.
2. For each question circle a number from 0 to 10. “0” means that you feel you have no confidence at all in that area, and “10” means you feel that you can successfully accomplish that task all of the time. A “5” would represent a moderate sense of accomplishing that task at least half of the time.
3. It is important to remember that your answer reflects how you think of your capabilities as they are today, not in the *future*, or not what you *think* they should be.
4. The results will be used to help management determine approaches that will assist supervisors in order to make their units run more effective, and make their jobs less stressful.

Name						
Location	o	o	o	o Head Office	Date	
Department				Unit		

No	Item	Can’t do at all – Moderately can do – Certain can do
1	I can identify problems in my unit that need to be addressed or improved.	0 1 2 3 4 5 6 7 8 9 10
2	I can positively influence my subordinates to entertain my ideas for improving the unit.	0 1 2 3 4 5 6 7 8 9 10
3	I am able to generate workable solutions to problems in my unit.	0 1 2 3 4 5 6 7 8 9 10
4	I can recognize the difference between problems I can handle and problems that can only be handled at a higher level.	0 1 2 3 4 5 6 7 8 9 10
5	I can focus on improving my unit, even when the boss is not directing me to do so.	0 1 2 3 4 5 6 7 8 9 10
6	I can rationally defend my improvement ideas when others challenge me.	0 1 2 3 4 5 6 7 8 9 10
7	I can find time to document solutions so that everyone affected is aware of the new procedure.	0 1 2 3 4 5 6 7 8 9 10
8	I can work with others in coming up with solutions.	0 1 2 3 4 5 6 7 8 9 10
9	I can justify time spent on improving my unit, when others may think I should spend most of my time running it instead.	0 1 2 3 4 5 6 7 8 9 10
10	I can express a new way of doing things to others in some form of documentation (memo, checklist, procedure, chart, etc.).	0 1 2 3 4 5 6 7 8 9 10
11	I can come up with creative solutions to difficult problems in my unit.	0 1 2 3 4 5 6 7 8 9 10
12	I can balance my time between running my unit and spending time improving it.	0 1 2 3 4 5 6 7 8 9 10
13	I can identify, before my boss does, areas that need improvement.	0 1 2 3 4 5 6 7 8 9 10

14	I can influence coworkers or teammates to support me in my improvement initiatives.	0 1 2 3 4 5 6 7 8 9 10
15	I can think of solutions that will permanently solve problems in my unit that are under my control.	0 1 2 3 4 5 6 7 8 9 10
16	I am able to express my views freely to my boss regarding improvement ideas.	0 1 2 3 4 5 6 7 8 9 10
17	I am confident that I can create documentation on new improvements or procedures that is easily understood by others.	0 1 2 3 4 5 6 7 8 9 10

Thank-You!

Appendix D

Transfer Performance Summary

<i>Transfer Performance Summary</i>			Date:
Your Name		Job Title	
Location	o <input type="checkbox"/> <input type="checkbox"/> o <input type="checkbox"/> o <input type="checkbox"/> o Head Office	Division	
Department		Phone	

Instructions: All three sections to be completed by the Kaizen course trainee's superior (in heading above). Upon completion, please send to the ☐ HR department: ☐ at ☐ & ☐ at ☐ and copy the project leader: John Gedeon at ☐. If you have any questions on how to complete an item, you may call Mr. Gedeon at ☐ or e-mail him.

This summary is for (tick one): o End of first month (due August 12th) o End of third month (due October 7th) ...since training took place (July 5-10th, 2002). Note: If this is the end of third month summary, only include number of problems solved in the past two months (not the total number since Kaizen training workshop).

SECTION 1

Trainee's Name	Enter the Total Number of Kaizen-related Problems Solved and Documented (Count the number of <i>Continuous Improvement Event</i> forms received from each trainee via e-mail for the last period)
1.	
2.	
3.	

Note: You should be neutral toward your trainees in terms of their practice of Kaizen (that is, you should not encourage or discourage it). The study, in part, is examining their self-initiative to practice their new skills.

SECTION 2

In this section, for each trainee rate the pre and post training quality of all solutions made during the period under review, given the objectives that they learned in their Kaizen workshop in July.

QUALITY RATING SCALE

- 0 = Does everything below standard
- 1 = Partially below standard
- 2 = Meets the standard
- 3 = Does it above standard
- 4 = Model behavior for others to follow

TRAINEE (1) NAME:		Before Training	After Training
N o	KAIZEN WORKSHOP OBJECTIVES	QUALITY	QUALITY
A	They see making improvement efforts on how they do activities (procedures & tools) as part of their job.	0—1—2—3—4	0—1—2—3—4
B	On their own, they are able to identify areas that need to	0—1—2—3—4	0—1—2—3—4

	be improved (that they can do something about at their authority level).		
C	On their own, they come up with good solutions to problems or make improvements to an existing system.	0—1—2—3—4	0—1—2—3—4
D	They are able to work with others (teammates, coworkers, superiors, people from other departments, etc.) to help in either planning, implementing, or accepting improvements.	0—1—2—3—4	0—1—2—3—4
E	They document or create “job aids” (e.g., checklists, memos, signs, etc.) to help others remember or practice the new method, or be aware of the new situation.	0—1—2—3—4	0—1—2—3—4

TRAINEE (2) NAME:		Before Training	After Training
N	KAIZEN WORKSHOP OBJECTIVES	QUALITY	QUALITY
A	They see making improvement efforts on how they do activities (procedures & tools) as part of their job.	0—1—2—3—4	0—1—2—3—4
B	On their own, they are able to identify areas that need to be improved (that they can do something about at their authority level).	0—1—2—3—4	0—1—2—3—4
C	On their own, they come up with good solutions to problems or make improvements to an existing system.	0—1—2—3—4	0—1—2—3—4
D	They are able to work with others (teammates, coworkers, superiors, people from other departments, etc.) to help in either planning, implementing, or accepting improvements.	0—1—2—3—4	0—1—2—3—4
E	They document or create “job aids” (e.g., checklists, memos, signs, etc.) to help others remember or practice the new method, or be aware of the new situation.	0—1—2—3—4	0—1—2—3—4

TRAINEE (3) NAME:		Before Training	After Training
N	KAIZEN WORKSHOP OBJECTIVES	QUALITY	QUALITY
A	They see making improvement efforts on how they do activities (procedures & tools) as part of their job.	0—1—2—3—4	0—1—2—3—4
B	On their own, they are able to identify areas that need to be improved (that they can do something about at their authority level).	0—1—2—3—4	0—1—2—3—4
C	On their own, they come up with good solutions to problems or make improvements to an existing system.	0—1—2—3—4	0—1—2—3—4
D	They are able to work with others (teammates, coworkers, superiors, people from other departments, etc.) to help in either planning, implementing, or accepting improvements.	0—1—2—3—4	0—1—2—3—4
E	They document or create “job aids” (e.g., checklists, memos, signs, etc.) to help others remember or practice the new method, or be aware of the new situation.	0—1—2—3—4	0—1—2—3—4

SECTION 3

In general, for all of your subordinates who took the Kaizen workshop (Section 1), what organizational
--

factors, positive or negative, would you attribute to the their application (or lack of application) of skills learned in the classroom?
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Appendix E
Kaizen Lesson Plan

Instructional Design for the Kaizen Workshop

“What are we going to do to keep it from happening again?”

Objectives	Assm't	Content	Method
1. Given their role as a supervisor, they see making improvement efforts on how they do activities (procedures, techniques, and tools) as part of their job.	True/ False	<ul style="list-style-type: none"> ▪ Traditional Role of Supervisor ▪ New Gap Closer Role ▪ Continuous Improvement ▪ What is Kiazen? ▪ How Does It Fit Into The Change Continuum? 	Ice: difference between you & your grandfathers' jobs? Lecture *Ex: ID some improvements you made w/o boss?
2. Given a situation that could be improved by minor problem-solving, they will, on their own, identify areas that need to be improved (that they can do something about at their authority level).	Case Study; Create a list in their area; Examples vs. Non-examples	<ul style="list-style-type: none"> ▪ What is an opportunity or problem? ▪ Criteria for PS at their level ▪ Examples ▪ Non-Examples ▪ The Maze ▪ Problem ID ▪ Writing a Problem Statement ▪ Writing a Goal Statement ▪ Solution Parameters 	Lecture Ex: List your local problems Ex: Write Problem Statements Ex: Write Goal Stmt Ex: Solution Parameters
3. When a problem or improvement area has been identified, they will create good solutions or make improvements to an existing system.	Multiple Choice	<ul style="list-style-type: none"> ▪ Matching Causes & Solutions ▪ Characteristics of a Good Solution ▪ Pilot Testing Solutions 	Lecture Ex: Characteristics of a good solution
4. When collaboration with others is required in the problem-solving process, they will work well with them (teammates, coworkers, superiors, people from other departments, etc.) in efforts to plan, implement, or accept improvements.	Multiple Choice	<ul style="list-style-type: none"> ▪ Stakeholder Participation ▪ Dialogue ▪ Building on Other's Ideas ▪ Managing Stakeholders 	Lecture Ex: What are the problems in SH collaboration?
5. Given an agreed upon solution, they will document or create “job aids” (checklists, memos, signs, lists, etc.) to help others remember or practice the new method, or be aware of the new situation.	Design a checklist; Draft a memo; Complete a <i>CI Event</i> form	<ul style="list-style-type: none"> ▪ Role & Classes of Job Aids ▪ Selecting a Job Aid ▪ Job Aid Design Process ▪ Aid Design Parameters ▪ Visual Literacy Principles ▪ Creating Checklists & Tables ▪ Signs & Posters ▪ Drafting Written Instructions & Memos ▪ <i>CI Event</i> Form & Procedure 	Lecture Ex: Selecting a job aid Ex: Designing a Checklist or table Ex: Sign / Poster design Ex: Memo elements Ex: <i>CI Event</i> Form

* “Ex” = Exercise

Appendix F

Continuous Improvement Event

<i>Continuous Improvement Event</i>					
Name				Job Title	
Location	o [REDACTED]	o [REDACTED]	o [REDACTED]	o Head Office	
Dept					
Phone				Date	Day: Month: 2002

AREA	DESCRIPTION
Problem or Improvement Opportunity	
Date Identified	
Solution Title	
Solution	
Date Implemented	
How was solution communicated to stakeholders?	<p>o Meeting –OR- o Training Session –OR- o Coaching –OR- o Memo (paper) –OR- o Memo (email) –OR- o Notification was not necessary due to the nature of the job aid PLUS...</p> <p>One or more of the following <u>tangible</u> JOB AIDS:</p> <p>o Checklist o Fixed Placard/Labels o Signs o Table o Chart o Diagram/Map o Schedule o Poster o Manual o New Procedure Sheet o New Policy Sheet o Directory o Glossary o Photo(s) o New/Revised Form o Work Sample o Color Coding o Other, explain:</p>
Other Notes	

By email: Please forward to your superior

Copy: [REDACTED] in HR at [REDACTED]

Project Consultant: John Gedeon at [REDACTED]

Appendix G

Relapse Prevention Lesson Plan

Instructional Design for the Relapse Prevention Session

Objectives	Assm't	Content	Method
1. Given the Kaizen skill to be utilized on the job, supervisors will set their goals, express their commitment to them, and what constitutes a “slip” and a “relapse” from these goals.	Short answer	<ul style="list-style-type: none"> ▪ What are the Benefits of Practicing Kaizen? ▪ What is a Goal & Why is it Effective? ▪ How are Goals Expressed – Effective & Ineffective? ▪ Defining a Slip ▪ Defining a Relapse 	Lecture *Ex: Goal setting Ex: Slip & Relapse definitions
2. Given the selection of the RP to promote Kaizen skills, supervisors will be able to explain the psychology and process of RP.	Multiple Choice	<ul style="list-style-type: none"> ▪ History of RP ▪ Relapse Psychology – Mistakes are part of learning ▪ The Commitment Violation Effect ▪ Avoiding Self-Blame ▪ The Relapse Process 	Lecture
3. Given the Kaizen goal, supervisors will identify potential difficulties and barriers to goal attainment.	N/a	<ul style="list-style-type: none"> ▪ Differences Between Training & Workplace Support ▪ Lack of Support from Stakeholders ▪ Subordinate Skeptical-ness ▪ High Risk Situations ▪ Overwhelming Situations ▪ “Unimportant” Decisions 	Lecture Ex: Identifying Barriers
4. Given the tendency to relapse, supervisors will identify skills and lifestyle changes necessary to support the new behaviour.	Short answer	<ul style="list-style-type: none"> ▪ Identifying Support Skills ▪ Review Lifestyle Patterns that Interfere with Transfer ▪ The “Should/Want Ratio” 	Lecture Ex: Support Skills ID Ex: Lifestyle & Should/Want Ratio
5. Given the need to be motivated, supervisors will identify consequences that will support their new behaviour.	Short answer	<ul style="list-style-type: none"> ▪ Organizational Support & Incentives ▪ Fabricated Consequences 	Lecture Ex: ID'ing Incentives & Consequences
6. Given the need to monitor one's effectiveness, supervisors will learn to complete the <i>Trainee Self-Monitoring Report</i> .	Short answer	<ul style="list-style-type: none"> ▪ Importance & Role of Feedback ▪ <i>Trainee Self-Monitoring Report</i> ▪ <i>Report</i> Distribution 	Lecture Ex: Completing the <i>Report</i>
Practice Support Skills (Fire-drills)	N/a	<ul style="list-style-type: none"> ▪ As identified in previous exercises & baseline instruments 	Role Play Lecture

* “Ex” = Exercise

Appendix H

Relapse Prevention Worksheet

Note: Items in italics are actual trainee responses.

Relapse Prevention Worksheet				
Name	<i>(their were five participants)</i>		Date	<i>July 11, 2002</i>
Goal	My goal is improve my unit by changing the way we do things by implementing at least one improvement event per: <i>FORTNIGHT</i> .			
“Slip” is...	Going more than <u> A FORTNIGHT </u> without an improvement event.	“Relapse” is...	Going more than <u> MONTH </u> without an improvement event.	

MATRIX	ADVANTAGES	DISADVANTAGES
Using Kaizen Skills	<ul style="list-style-type: none"> ▪ <i>Better time management via being organized</i> ▪ <i>No budget required for most improvements</i> ▪ <i>Improved quality</i> ▪ <i>Improved communication</i> ▪ <i>Increase in productivity/results</i> ▪ <i>Fewer interruptions by subordinates</i> ▪ <i>Make operations simpler</i> ▪ <i>Standardize methods</i> 	<ul style="list-style-type: none"> ▪ <i>Negative perception by subordinates</i> ▪ <i>Stakeholders may not be receptive</i> ▪ <i>Takes too much of my time</i>
Not Using Kaizen Skills	<ul style="list-style-type: none"> ▪ <i>No one will pressure me to use these skills (no consequences)</i> 	<ul style="list-style-type: none"> ▪ <i>Constantly outing fires</i>

PROBLEMS & SOLUTIONS		
Barriers/Situations	Strategy	Skill/Resource Required
1. <i>Skepticism of others</i>	<i>What's in it for them (WIIFM); bring in "outsiders;" Stress core values</i>	<i>Selling skills</i>
2. <i>Non-supportive teammates</i>	<i>Same as above</i>	<i>Selling skills</i>
3. <i>I'm too busy</i>	<i>Dedicating time each week for Kaizen</i>	<i>Decision</i>
4. <i>Dysfunctional systems</i>	<i>Dedicating time each week for Kaizen</i>	<i>Kaizen</i>
5. <i>Fear of making mistakes</i>	<i>Remember RP psychology a slip is not a sign of weakness; tackle smaller items first & build confidence</i>	<i>Decision</i>
6. <i>Lack of resources</i>	<i>Explain to the managers the ROI of the improvement</i>	<i>Negotiation; knowing sources of power</i>

PREDICTION OF CIRCUMSTANCES OF FIRST SLIP
1. <i>Penal overhaul will distract me.</i> 2. <i>Nothing (i.e., I won't slip)</i>

SUPPORT & INCENTIVES		
ORGANIZATIONAL	SELF-MADE – POSITIVE	SELF-MADE - NEGATIVE
<i>Spot Awards</i>	<i>Take leave (time-off)</i>	<i>If I slip, schedule time to make improvements</i>
<i>More autonomy; empowerment</i>	<i>Group functions (party)</i>	<i>Not liming</i>
<i>Intrinsic reward</i>	<i>Spend extra money on myself</i>	<i>Reduce liming</i>
	<i>Take some time off</i>	<i>Not taking the Spanish lesson</i>

SELF-MONITORING REPORT SCHEDULE				
(#)	FORTNIGHT	Number of C. I.	DUE DATE	Trainee Self-Monitoring Report

	COVERED (SUN - SAT)	Events Fully Implemented	(Monday)	DATE E-MAILED TO Superior, HR & John Gedeon
1	JUL 14 – 27		JUL 29	
2	JUL 28 – AUG 10		AUG 12	
3	AUG 11 - 24		AUG 26	
4	AUG 25 – SEP 7		SEP 9	
5	SEP 8 - 21		SEP 23	
6	SEP 22 - OCT 5		OCT 7	

Appendix I

Trainee Self-Monitoring Report

<i>Trainee Self-Monitoring Report</i>				
Name			Job Title	
Location	o [REDACTED]	o [REDACTED]	o [REDACTED]	o Head Office
Dept				
Phone			Due	Day: Month: 2002
Fortnight Covered	Starting	Sunday: (insert date)	Ending	Saturday: (insert date)

Please complete and fill out, even if you have not implemented any solutions this fortnight.

AREA	DESCRIPTION
Number of Solutions Implemented*	
Solution Titles	1.
Number of problems being worked on, but not implemented yet	
* If no solutions were implemented, please state reason(s) here	1.

By email: Please forward to your superior

Copy: [REDACTED] in HR at [REDACTED]
 [REDACTED] at [REDACTED]
 Project Consultant: John Gedeon at [REDACTED]

Thank-you!

Appendix J
Doctoral Study Agreement

Doctoral Study Agreement

The purpose of this agreement is to explicitly state the relationship and roles of both parties in the “Transfer of Training” improvement intervention study.

AREA	DESCRIPTION
Parties	██████'s HR Division and John A. Gedeon, NSU doctoral student.
Study Title	<i>The Transfer of Training of Supervisors in a Private Sector Enterprise</i>
Introduction	<p>This document is based on the <i>Doctoral Applied Dissertation Study (DADS)</i> (September 1, 2001 version), which was reviewed with two ██████ HR Officers on October 11, 2001. Unless otherwise noted below, the terms, documents, roles, procedures, and timetables of DADS will be in effect.</p> <p>The study involves pre-intervention baseline data collection, an intervention in the form of a “Kaizen” training workshop, a post training “Relapse Prevention” session with the treatment group, and data collection for three months after the intervention. See the full <i>Study</i> approach for more details.</p>
Researcher's Roles	<ol style="list-style-type: none"> 1. Provide all training materials, tests, and data collection instruments along with their procedures (as outlined in DADS) with <i>Self-Efficacy</i> instrument (now being developed) 2. Brief the superiors (with an HR representative present) on the study and their roles 3. Conduct Kaizen training and RP session 4. Oversee/conduct administration of data collection instruments to target respondents 5. Analyze data and report on findings 6. Conduct study-related progress meetings with HR/stakeholders 7. Provide ██████ with a copy of the study results
██████ HR Div. Roles	<ol style="list-style-type: none"> 1. Present the program to the organization/units involved so as to sell them on it, while keeping parts confidential until the completion of the study 2. Support data collection activities by setting up appointments and meeting venues, and especially to ensure that fortnightly, RP-group, self-monitoring tallies are collected over three months 3. Copying data collection instruments for respondents 4. Provide resources (printing the training manual/handouts/tests/learning materials) and venue for the training and RP sessions, including a nominal facilitation fee

	<p>of [REDACTED] per day.</p> <ol style="list-style-type: none"> 5. Ensure that all subjects participate in every phase (control leave, vacation, assignments, etc.) 6. After the study, offer the control group a chance to take the RP session to be fair in extending training that the initial RP group already got. 7. Director of HR to verify dissertation activities to NSU on standard forms provided 8. Deal with any emergent problems that were not foreseen in the planning stages that threaten the study
Scheduling	<p>Upon signing this agreement:</p> <ol style="list-style-type: none"> 1. A list of subjects will be drawn up and confirmed. 2. Appointments will be set up immediately for PR/stakeholder meetings and pre-intervention data collection activities. 3. Upon approval of Dissertation Proposal from NSU, researcher will notify [REDACTED] and training and RP session dates will be as soon as possible. 4. Study will then follow the schedule of activities outlined in DADS “Timetable” section: weeks 6 to 18+.
Signatures	<p>_____</p> <p>John A. Gedeon (Researcher) [REDACTED] (HR Director)</p>
Date	Signed on this day of 2001.

Appendix K

Doctoral Applied Dissertation Study

Doctoral Applied Dissertation Study

AREA	DESCRIPTION
Introduction	<p>Mr. John A. Gedeon is in the process of designing his Applied Dissertation study for his doctoral requirements for the degree of Ed.D. in <i>Instructional Technology & Distance Education</i> at Nova Southeastern University (NSU) of Fort Lauderdale, Florida (www.nova.edu).</p> <p>His dissertation topic is “transfer of training,” which can be defined as the probability that trainees will generalize (apply) and maintain (over time) skills they have learned in an instructional setting when they go back to the workplace. Current research in the U.S. indicates that transfer rates are rarely above 20%, which means that a lot of resources are being wasted (cost to put on training, and cost to have employees away from their jobs, etc.).</p> <p>██████████ was approached to host the study by Mr. Gedeon because of its size (to get a adequate sample), his previous involvement of training managers and staff there in 1995-6, and because of their progressive HR department which is always seeking to improve organizational performance.</p>
Study Overview	<p>Note: throughout this document the individuals or subjects being exposed to training will be called “trainees,” and who they report to on the job will be termed “superiors,” so as not to have the meaning of “supervisor” get confusing.</p> <p>The study is considered a controlled experiment in which a randomly selected group of 30 supervisors and senior technical staff (referred to as trainees) will be exposed to a 1-2 day training session on a Kaizen (continuous improvement) minor problem-solving technique. Once they identify and solve a departmental problem, they must document it and make it known to all affected stakeholders, including their superiors (this way the behaviour can be counted).</p> <p>The group of 30 will be randomly assigned to either a control or experimental group. The control group (of 15), will then be returned to work without further interventions. The experimental group will be exposed to an additional half-day intervention called “Relapse Prevention” (RP). RP is based on the theory that whenever someone learns a new skill that there is a tendency to “relapse” into old behaviors because of environmental pressures and internal dynamics of the trainee him/herself.</p>

	<p>RP will involve identifying barriers to practicing the new skills back in the workplace, developing strategies and skills to deal with them, in addition to the teaching the ‘psychology of relapse’ and its role in changing behaviors.</p> <p>Before, during and after training, measurements will be taken to look for comparison between pre and post training behaviors, between the control group and experimental group, and between short and long term usage of new skills. <i>It is predicted that the RP group will significantly outperform the control group and will maintain the new behavior over time.</i> This is the first time (to the researcher’s knowledge) that the RP approach is being used outside of the U.S. and the cultural impact, therefore, is an unknown. See attached PowerPoint presentation on the content and structure of an RP program.</p> <p>The whole process should take about four months (more detailed schedule given later in this paper).</p>
Data Collection	<p>The most difficult part of the study will be the data collection that must be done to provide evidence that a problem exists and that the RP treatment was the cause of any boost in transfer rates.</p> <p>To demonstrate that the transfer problem exists in general the Previous Training Transfer Profile instrument (Appendix I) will be completed by trainees’ superiors to gather information on a previous workshop or CBT course to determine how much and well it is transferring to the workplace. A second section asks the superior to rate transfer factors in general for their work environment. This will be administered before the Kaizen workshop.</p> <p>A second form of pre-training data will be collected on the self-efficacy of the trainees. Self-efficacy is defined as a belief in one’s capability to mobilize the cognitive resources, motivation, and courses of action needed to meet task demands. It is a great predictor of how hard someone will struggle in the face of many opposing forces until the task or activity is complete. This factor may be operating just as strongly as the RP intervention itself. It will be a short ten-item survey that can be taken in 5 minutes.</p> <p>At the end of training a test will be administered to demonstrate that the trainees actually did learn the skill, which is obviously a pre-requisite to transfer. They will also complete the standard “reaction” sheet to determine their emotional reaction to the session.</p> <p>After the RP group completes its RP session, it will also compete a short test and reaction form.</p>

	<p>The RP group will be completing a self-monitoring instrument that simply records every time they use their new Kaizen skill and the date for up to three months after training. This data will be transmitted directly by e-mail to the researcher on a fortnightly basis, while being copied to HR.</p> <p>To record the frequency of usage for the control group (that will not be using a self-monitoring instrument), a procedural change is required at [REDACTED]. Whenever a problem is solved it must be documented (by a memo or other mechanism) and a copy forwarded to all affected stakeholders including the superiors.</p> <p>At one and three months after training superiors will summarize the frequency of new skills usage on the Transfer Performance Summary instrument (See Appendix II). The source of this information will be the documentation of the problem-solving.</p>
Roles	<p>All Trainees:</p> <ol style="list-style-type: none"> 1. Take Self-efficacy survey 2. Attend Kaizen training; take tests; complete reaction form <p>RP-Trainees:</p> <ol style="list-style-type: none"> 1. Attend half-day RP session; take test; complete reaction form 2. Complete self-monitoring instrument as problems are solved; forward to researcher every fortnight <p>Superiors:</p> <ol style="list-style-type: none"> 1. Attending a briefing on the experimental study and their roles 2. Have them complete the <i>Previous Training Transfer Profile</i> instrument before training starts 3. Collect problem-solving documentation from their trainees as it comes in, in a special file 4. At one and three months after training, complete the <i>Transfer Performance Summary</i> instrument 5. Keep the nature of the study secret until it is over <p>HR:</p> <ol style="list-style-type: none"> 9. Agree on design and timetables for the study 10. Present the program to the organization so as to sell them on it, while keeping parts confidential until the completion of the study 11. Support data collection activities by setting up appointments and meeting venues, and especially to ensure that fortnightly, RP-group, self-monitoring tallies are collected over three months 12. Provide resources and venue for the training sessions, including a nominal facilitator's fee.

	<div><div><div>13. After the study, offer the control group a chance to take the RP session to be fair in extending training that the initial RP group already got.</div><div>14. Director of HR to verify dissertation activities to NSU on standard forms provided</div><div>15. Deal with any emergent problems that were not foreseen at the start that threaten the study</div><div>16. Sign an agreement once the design and timetables have been agreed upon</div></div><div>Researcher:</div><div><div>8. Negotiate design and scheduling of the study with HR</div><div>9. Provide all training materials, tests, and data collection instruments along with their procedures</div><div>10. Brief the superiors (with an HR representative present) on the study and their roles</div><div>11. Conduct Kaizen training and RP session</div><div>12. Oversee administration of data collection instruments to target respondents</div><div>13. Conduct study-related progress meetings with HR</div><div>14. Provide [REDACTED] with a copy of the study results</div></div></div>																																																
Timetable	<div><div>The table starts with the assumption that an agreement is in place for the study, and that random subjects have been selected.</div><div>The actual project cannot start the researcher’s Proposal has been approved by NSU (October 2001 or sometime after).</div></div> <table><tr><th>Week</th><th>Duration</th><th>Activity</th></tr><tr><td>1</td><td>1 wk</td><td>PR Initiatives to the organization</td></tr><tr><td>2</td><td>1 wk</td><td>Brief superiors on study</td></tr><tr><td>2</td><td>1 day</td><td>Notify trainees of training dates and venue</td></tr><tr><td>2</td><td>1 wk</td><td>Have superiors complete <i>Previous Training Transfer Profile</i> instrument</td></tr><tr><td>2</td><td>1 wk</td><td>Have trainees complete the Self-Efficacy survey</td></tr><tr><td>4</td><td>2 days</td><td>Kaizen training</td></tr><tr><td>4</td><td>½ day</td><td>Relapse Prevention session</td></tr><tr><td>6</td><td>1 day</td><td>Collect RP group’s self-monitoring fortnightly data</td></tr><tr><td>8</td><td>1 day</td><td>Collect RP group’s self-monitoring fortnightly data</td></tr><tr><td>9</td><td>1 wk</td><td>Collect <i>Transfer Performance Summary</i> for the end of Month-1.</td></tr><tr><td>10</td><td>1 day</td><td>Collect RP group’s self-monitoring fortnightly data</td></tr><tr><td>12</td><td>1 day</td><td>Collect RP group’s self-monitoring fortnightly data</td></tr><tr><td>14</td><td>1 day</td><td>Collect RP group’s self-monitoring fortnightly data</td></tr><tr><td>16</td><td>1 day</td><td>Collect RP group’s self-monitoring fortnightly data</td></tr><tr><td>17</td><td>1 wk</td><td>Collect <i>Transfer Performance Summary</i> for the end of Month-3.</td></tr></table>	Week	Duration	Activity	1	1 wk	PR Initiatives to the organization	2	1 wk	Brief superiors on study	2	1 day	Notify trainees of training dates and venue	2	1 wk	Have superiors complete <i>Previous Training Transfer Profile</i> instrument	2	1 wk	Have trainees complete the Self-Efficacy survey	4	2 days	Kaizen training	4	½ day	Relapse Prevention session	6	1 day	Collect RP group’s self-monitoring fortnightly data	8	1 day	Collect RP group’s self-monitoring fortnightly data	9	1 wk	Collect <i>Transfer Performance Summary</i> for the end of Month-1.	10	1 day	Collect RP group’s self-monitoring fortnightly data	12	1 day	Collect RP group’s self-monitoring fortnightly data	14	1 day	Collect RP group’s self-monitoring fortnightly data	16	1 day	Collect RP group’s self-monitoring fortnightly data	17	1 wk	Collect <i>Transfer Performance Summary</i> for the end of Month-3.
Week	Duration	Activity																																															
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Checklist for [REDACTED] HR	<ol style="list-style-type: none"> 1. Review/amend Study Workplan (this document) 2. Sign Researcher-[REDACTED] Agreement 3. Develop [REDACTED] Announcement Plan 4. Randomly select trainees and assignment to control/experimental group without researcher's awareness of who is in what group until after training 5. Schedule meetings/venues for supervisors, data collection, training, and RP session 6. Publish instruments, learning materials, and other documents 7. Assist with data collection 	
Researcher Checklist	<ol style="list-style-type: none"> 1. Refine transfer data collection instruments (Appendix I & II) 2. Design Self-Efficacy instrument 3. Design one-page problem-solution document 4. Design Kaizen workshop, learning materials, test, and reaction sheet 5. Design RP session learning materials, test, and reaction sheet 6. Design documentation of problem-solving (to be used by trainees and copied to superiors) 7. Design self-monitoring instrument for RP trainees 8. Design project management tools to monitor study activities 	
Appendix	NO.	TITLE OF DOCUMENT
	I	<i>Previous Training Transfer Profile</i>
	II	<i>Transfer Performance Summary</i>

Appendix L

IRB Letter to Participants

John A. Gedeon, M.P.A.

Phone: [REDACTED] West Indies
e-mail: [REDACTED]

[Date]

Re: ***Transfer of Training Study***

Dear Participants:

Earlier this year, a study was conducted at [REDACTED] to examine the effectiveness of a technique to boost the rate of transfer of training. Participants were not previously informed so as not to influence the results of the study. The study is both part of the doctoral requirements of the researcher named below and [REDACTED]'s program to measure and improve the effectiveness of transfer.

Study Title: The Transfer of Training of Kaizen Improvement Skills Using Relapse Prevention by Supervisors in a Private-Sector Enterprise.

Researcher: John A. Gedeon, M.P.A., Management Consultant, [REDACTED]
West Indies, [REDACTED].

Institutional Review Board, Office of Grants and Contracts, Nova Southeastern University, Ft. Lauderdale, Florida, USA, (954) 262-5369.

Description of the Study: "Transfer of training" rates have been shown to be around 10-20% in the USA. This is a serious concern of every organization.

As you saw in the first survey you completed, early this year before the Kaizen training course, there are many factors that can block transfer, therefore, there are also many solutions to the problem. One solution tried in this study was to support workers through "booster" sessions, technically called Relapse Prevention.

Relapse Prevention literally means to help someone from relapsing into old and comfortable behaviours, instead of applying the new skills they have been taught. It seeks to assist the trainee set goals, identify barriers back at the workplace and strategies to deal with them, and provide some kind of personal reward for attaining those goals.

The study was designed to involve 30 supervisors, but only 12 actually attended the two-day Kaizen training workshop in early July. Shortly after this, 5 supervisors were randomly selected to attend the ¾-day Relapse Prevention session. The other 7 were sent directly back to work. The study tried to determine which group would use their new skills more often, and longer. It was predicted that Relapse Prevention group would do better. Self-efficacy, or the level of your belief that you can accomplish a task or use a skill, was also measured to determine its impact on the outcomes. The results of the study, once analyzed, will be made available to you through the HR department.

Risks and Benefits to the Participant: It was thought that there was very little risk for you participating in this study, not any more than the risk of taking any self-improvement course. To be fair, though, the 5, who did not receive the Relapse Prevention session, will be afforded the opportunity to do so. HR will be contacting you soon to see if you would like to take this course, but it is optional, you do not have to attend it.

The benefits of this study are:

1. You improved on your existing problem-solving and improvement skills, which is a key competency of anyone in management
2. Good problem-solvers are often promoted ahead of those who lack or do not use this skill
3. You improved the functioning of your immediate work area in certain areas
4. You helped improve the performance of [REDACTED] as a whole
5. You helped [REDACTED] identify where obstacles to the transfer of training are most severe, so that programs can be designed in the future to address them
6. You helped change the culture in two ways: to make it a Kaizen culture where continuous improvement is a way of life, and to make it a Learning culture where the organization promotes the use of your new skills instead of blocks them
7. You learned Relapse Prevention skills which can be used in any area of your life, such as, trying to stop smoking, going on a diet, or stopping a bad habit; the more you can manage your behaviour, the more you can obtain your goals in life

Confidentiality: As you saw on the surveys that you completed and the documentation and reports you completed over the three months of the study, there was a place for your name. Many studies do not ask for names because they are only concerned with group averages. In this study, it was important to be able to match your 'before and after' scores and determine the impact of self-efficacy. Therefore, you were asked to provide your names.

All of the surveys that were collected by HR were forwarded to the investigator. The company did not retain any copies or use the information for HR functions such as discipline, promotions, training needs, etc. The investigator has secured all of these documents and will only release the general findings in his dissertation, without making reference to anyone's names. No one will be able to identify you individually or your organization in the dissertation, which is a standard procedure in research.

Should you desire any more information on the study, please feel free to contact Mr. Gedeon. The researcher and Nova Southeastern University would like to take this opportunity to thank you for participating in this study.

Faithfully,

John A. Gedeon,
Researcher

Appendix M
Workshop Quizzes

Kaizen Quiz

Day One

Print Name:	Date:
--------------------	--------------

TRUE OR FALSE:

Tick one

- o T o F 1. The most important things in an organization are physical, like equipment, materials, buildings, and money.

- o T o F 2. It is your boss's role, not yours, to identify and solve problems.

- o T o F 3. The more things change, the more that problems will arise.

- o T o F 4. The primary job of a supervisor is to give directions, not improve things.

- o T o F 5. Kaizen means that everyone at all levels should frequently improve the way things are done.

SHORT ANSWER:

1. What is the definition of a "problem?"
2. What are some signs or clues that let you know a problem exists?
3. List an additional three problems or areas for improvement in your unit that you have not already identified in the classroom exercises.
4. Write one problem statement from one of the problems you mentioned in the previous question.
5. For this same problem above, write a goal statement.
6. For this same problem above, provide at least five solution parameters.
7. Draw and label the "Matches" diagram with its six-boxes.
8. In front of each of the items below, write "EX" if it is an example of the type of problem or solutions that you can solve at your level, and "NE" if it is a Not an Example.
 - (a) Changing the work culture of the organization
 - (b) Improving a form that you use in your unit
 - (c) Putting up signs to guide contractors through your area
 - (d) Improving the petty cash system
 - (e) Putting a chart beside a machine to show operating temperature ranges
 - (f) Giving staff a table showing codes and what they mean
 - (g) Putting a checklist on the wall for a new procedure
 - (h) Changing a process that involves other departments
 - (i) Labeling light switches or a control panel
 - (j) Improving a company policy
 - (k) Creating a trouble-shooting chart for common maintenance problems on your machines

Kaizen Quiz

Day Two

Day Two

Print Name:

Date:

SHORT ANSWER:

1. What is the difference between a “problem” and a “problem cause?”
2. Explain the three different types of relationship between causes and solutions
3. How does one know that a problem has been solved?
4. What are some characteristics of a good solution?
5. What is the two-sided definition of a stakeholder?
6. Why do we want a “win-win” outcome with stakeholders?
7. What is the difference between “discussion” and “dialogue?”
8. At which points is it important to bring others into a simple problem solving process?

MULTIPLE CHOICE:

1. Select the most appropriate job aid from your list on the “Job Performance Aids” sheet for the given problem or improvement listed below and enter it after the item.
- (a) You want your staff to know about a new procedure []
 - (b) Contractors are always getting lost in your area []
 - (c) The staff can’t remember all those codes and often use the wrong ones on forms []
 - (d) Staff often omit a section in their reports to you []
 - (e) When performing maintenance on a machine, the technicians often forget a few importance tasks []
 - (f) Your staff constantly interrupt you to get someone’s phone number []
 - (g) Staff often put the wrong kind of information into certain boxes of a form []
 - (h) Staff pick up the wrong size bolt and waste time coming back to get the correct one []
 - (i) When staff put things in the storage area they often put it in the wrong bin or shelf []
 - (j) Security has to flip about 20 switches before they can find the correct one []
 - (k) Your new people keep on asking the same routine questions over and over []
 - (l) You have a machine that is only used a few times a year and mostly everyone forgets how to operate it properly []
 - (m) Staff forget to change the fluid every 100 operating hours on an machine []
 - (n) Staff frequently put the letterhead in upside in the laser printer thus wasting sheets []
 - (o) When operating the VCR and TV, staff fidget with the cables and channels a

long time before they connect it up correctly []

2. When designing a job aid, what general parameters or criteria should you strive to achieve? Name at least 6 of the 11 that you were given.
3. There is a process that you should go through most of the time when you are designing, developing and implementing new job aids. List as many of the nine sequential steps needed to create an effective job aid as you can remember
4. List the elements of a short memo that you would send to your staff informing them of a new procedure or policy.
5. Make up a checklist for a common procedure in your area.
6. Put the following jumbled information into a job aid for your staff that will be placed next to the drying machine RD-280:
 “if red light comes on switch the unit off immediately; when the dial shows 100 the real temperature is 120, 50 on the dial is 75 degrees; don’t touch the outer cover as it is always hot; 35 degrees is 20, 200 on the dial is 250; under no circumstances should the unit be operated over 250 degrees; the preheating time is 30 minutes before the unit is ready for use.”
7. Make up an imaginary improvement and complete a “Continuous Improvement Event” form below.

<i>Continuous Improvement Event</i>				
Name			Job Title	
Location	o []	o []	o []	o Head Office
Dept				
Phone			Date	Day: Month: 2002

AREA	DESCRIPTION
Problem or Improvement Opportunity	
Date Identified	
Solution Title	
Solution	
Date Implement	
How was solution communicated to stakeholders?	o Meeting OR o Training Session OR o Coaching PLUS... One of the following <u>tangible</u> JOB AIDS: o Memo o Checklist o Fixed Placard/Labels o Signs o Table o Chart o Diagram/Map o Schedule o Poster o Manual o New Procedure Sheet o New Policy Sheet o Directory o Glossary o New/Revised Form o Photo(s) o Work Sample o Color Coding o Other, explain:
Other Notes	

Relapse Prevention Quiz

Print Name:	Date:
--------------------	--------------

MULTIPLE CHOICE

Please circle the most correct answer:

1. Which one of the following is not a reason why goals are effective:
 - (a) It directs our attention to goal activities and away from non-relevant tasks
 - (b) It serves as a reminder of what we want to achieve
 - (c) It spells out in detail important tasks to be done
 - (d) It helps maintain the intensity of effort
 - (e) It helps us persist until the goal is reached

2. A “Slip” is:
 - (a) A sign of personality weakness
 - (b) Lack of effort
 - (c) A relapse
 - (d) A temporary, but not permanent, return to old behaviours
 - (e) Evidence of lack of skill




3. A “Relapse” is:
 - (a) Proof that one is incapable of performing the new skill
 - (b) Sign of lack of willpower
 - (c) Lack of effort
 - (d) Loss of motivation
 - (e) Permanent return to old behaviours

4. The Relapse Prevention approach is based on the philosophy that (pick the best answer, some are partially true):
 - (a) Relapses are prevented by improving our willpower
 - (b) The prevention of relapses is based on the quality of training
 - (c) Humans are naturally weak and need incentives
 - (d) We learn from our mistakes

5. Relapse Prevention works for all the following reasons, except:
 - (a) It provides an “early warning” system
 - (b) It strengthens our willpower
 - (c) We get better when we learn from our slips
 - (d) It provides incentives to keep us motivated
 - (e) It provides goals to keep us focused
 - (f) It teaches us that slips are a natural part of change

6. The “Commitment Violation Effect” is:
 - (a) When we irrationally blame ourselves when a slip occurs
 - (b) When commitment is violated

- (c) When violation of commitment is created by circumstances
(d) When we abandon our commitment altogether
7. After a slip or two, what is the most likely impact to someone not trained in RP?
(a) Reflection and then reuse of new skill
(b) Drop in motivation to continue to use the new skill
(c) A relapse then return to new skill usage
(d) Blaming external factors
8. The “Should/Want Ratio” means:
(a) That we should want what we need
(b) That we should need what we want
(c) That we have too many “shoulds” and not enough wants
(d) That we have too many wants and not enough “shoulds”
9. Which two of the following are not part of the *Seven-Step RP* process?
(a) Choose a skill to retain
(b) Document your baseline performance
(c) Apply the RP Strategies
(d) Monitor the new target behaviour at the workplace
(e) Set goals
(f) Predict the circumstances of the first slip
(g) Create a new skill usage schedule
(h) Making a commitment to use the new skill
(i) Practicing support skills for difficult situations
10. Which one of the items below in not a good reason for why we self-monitoring the use of new skill?
(a) It keeps us focused on our goal
(b) It makes us less reliant on our memory to review our performance
(c) We may over inflate our success if we don’t document it
(d) Feedback helps us to adjust our strategy
(e) To improve our record-keeping ability
11. Pretend it is the end of the first fortnight since Kaizen training. Please complete this form that you will email. The starting date is Sunday July 14th.

<i>Trainee Self-Monitoring Report</i>				
Name			Job Title	
Location	o 	o 	o 	o Head Office
Dept				
Phone			Due	Day: Month: 2002
Fortnight Covered	Starting	Sunday: (insert date)	Ending	Saturday: (insert date)

Please complete and fill out, even if you have not implemented any solutions this fortnight.

AREA	DESCRIPTION
Number of Solutions Implemented	
Solution Titles	1. 2. 3.
Number of problems being worked on, but not in implemented yet	

Appendix N

Dissertation Study Checklist for HR

Dissertation Study Checklist for HR

AREA	ACTION	
Outstanding Pre-Intervention Superior Surveys	[REDACTED]	
Outstanding Pre-Intervention Trainee Survey	o [REDACTED] (tell her when she fills it out to think of her <u>PRE-Training skill level</u>)	
Outstanding Training Quizzes	<u>Kaizen Day-Two Quiz:</u> [REDACTED]	<u>RP Quiz:</u> [REDACTED]

Fortnightly RP Self- Monitoring Reports (Very critical to get Oct 7 th results immediately!)	RP Names	Jul 29	Aug 12	Aug 26	Sep 9	Sep 23	Oct 7
	[REDACTED]	o	o	o	o	o	o
	[REDACTED]	Aug 5	Sep 5	Sep 5	o	o	o
	[REDACTED]	o	o	o	o	o	o
	[REDACTED]	o	o	o	o	o	o
	[REDACTED]	o	o	o	o	o	o

Post-Intervention Superior's <i>Transfer Performance Summary Survey</i> (Month 1) o Alert: Aug 8 th Due: Aug 12 th	[REDACTED]	
Post-Intervention Superior's <i>Transfer Performance Summary Survey</i> (Month 3) o Alert: Oct 3 rd Due: Oct 7 th	[REDACTED] <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">Very critical to get these <u>on</u> Oct 7th so I can start writing up my results and finish the dissertation by the deadline!!</div>	
Interviews	o Set up appointments with all those involved in the study for the week Sept. 9-13 for final interviews.	
Letter to Participants	o Sept. 16 th send out official letter (I have prepared one) notifying all participants (superiors and trainees) that were taking part in a study over the last four months	

RP Make-Up Session	<ul style="list-style-type: none"> o Sept. 16th email all Control group members to see if any want to take the RP session, if so... o Select a date for RP session and notify parties o Prepare training manuals, catering, room reservation, etc. o Pay the facilitator
Distribute Study Results	<ul style="list-style-type: none"> o To all superiors and trainees in written form. I will prepare an executive summary for that purpose in November. o Set a date for a presentation to top [REDACTED] management (Nov.).
Reward	<ul style="list-style-type: none"> o Day in Tobago courtesy John Gedeon Airways (Cessna) for [REDACTED] (substitutions may be made for those who are fearful of small aircraft) includes lunch and good times.

Appendix O

Transfer Survey (Kaizen Trainees)

<i>Transfer Survey</i>		GROUP: <input checked="" type="checkbox"/> Kaizen Only <input type="checkbox"/> Relapse Prev. <input type="checkbox"/> Superiors <input type="checkbox"/> Key Managers	
Name		Title	
Location	<input type="radio"/> HQ <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Date	

DATE	TRAINEE	RP ?
SEP 9		YES
SEP 11		NO
(“)		NO
(“)		YES
SEP 12		YES
SEP 13		NO
SEP 22		NO*
SEP 30		NO*

**Only asked if they made any improvements. If not, why?*

“x” after responses indicate frequency. Example: “x4” = four made that response.

KAIZEN	
01	Tell me how you felt about the value of the Kaizen workshop that you took in July? If you had it to do over again, would you still have taken the course? <input type="radio"/> Yes x6 <input type="radio"/> No
	<ul style="list-style-type: none"> ▪ Very good. It could help me. ▪ Very valuable x2; feedback from my boss is good ▪ Have taken a similar course in the past; nothing was new to me ▪ It helped me to formalize and structure what I am doing already; gave credibility; I now know that I am on the right track ▪ Extremely enlightening and beneficial
02	Describe your level of confidence in your ability to perform in the five objective areas taught in the Kaizen course.
	<ul style="list-style-type: none"> ▪ I am not a supervisor, but feel I can do all of them. ▪ High x5
03	Can you provide examples of how you have used Kaizen skills in solving workplace problems?
	<p>CONTROL GROUP</p> <ul style="list-style-type: none"> ▪ I designed a new form [Non-RP] ▪ I made directories for my hard drive [Non-RP] ▪ I reorganized my manual filing system [Non-RP] ▪ I modified the programming in Maximo to create more user-friendly reports [Non-RP] ▪ Daily review of plant procedures before shift [Non-RP] ▪ Being specific on machine problem-reporting [Non-RP] ▪ Illustrate planning and scheduling concepts [Non-RP] ▪ Explain work-order priorities for Maximo [Non-RP] <p>TREATMENT GROUP (RP)</p>

	<ul style="list-style-type: none"> ▪ I redesigned two of our forms to make them more user friendly [RP] (Counts as two) ▪ Reformatted HOLIS computer display for medical plan in ABRA (HR software) ▪ Reorganized files so that others could access documents quickly when I am not around [RP] ▪ Redesigned roles of panelists for recruitment interviews [RP] ▪ Redesigned how we prepare HR files for executive use [RP] ▪ Marketing HR to line managers (WIIFM) [RP]
04	How did you communicate solutions to the affected stakeholders? What “job aids” did you create?
	<ul style="list-style-type: none"> ▪ A memo to the employees x2 ▪ E-mail ▪ 1:1 talks ▪ Samples of new report ▪ Word of mouth ▪ Meetings x2 ▪ Documentation
05	Describe any problems or concerns you experienced in documenting your use of Kaizen problem-solving skills (as you were taught to do in class).
	<ul style="list-style-type: none"> ▪ I did not link the CIE with each improvement ▪ I filled it out but did not e-mail it ▪ Did not remember it x2 ▪ I did not think it would add value or anyone in HR would respond to it ▪ Knew I had to do it but was too busy
06	If you did <u>not</u> use your new Kaizen skills, what factors would you say influenced your behaviour?
	<ul style="list-style-type: none"> ▪ N/A x6 ▪ Too busy
07	For each of the following factors indicate how it was a positive or negative influence on your behavior with respect to implementing what you learned in the Kaizen workshop.
7a	<p>██████’s work culture:</p> <ul style="list-style-type: none"> ▪ Head Office culture is very empowering x2 ▪ The culture has a mandate for improvement x2 ▪ It was neutral
7b	<p>██████’s bonus/incentive system:</p> <ul style="list-style-type: none"> ▪ Positive, as the appraisal system rewards making improvements ▪ Neutral x5
7c	<p>Relationship with your superior:</p> <ul style="list-style-type: none"> ▪ Positive x3 ▪ Neutral x2 ▪ Negative
7d	<p>Your superior’s work priorities:</p> <ul style="list-style-type: none"> ▪ Negative; too many projects and deadlines x 3 ▪ Neutral ▪ Positive x2

7e	Relationships with coworkers/teammates: <ul style="list-style-type: none"> ▪ Neutral x 4 ▪ Positive x2
7f	Time: <ul style="list-style-type: none"> ▪ Negative x3 ▪ Neutral x2 ▪ Positive
7g	Resources: <ul style="list-style-type: none"> ▪ Neutral x 6
7h	Motivation: <ul style="list-style-type: none"> ▪ Positive x 6
7i	Your perspective about your job: <ul style="list-style-type: none"> ▪ Positive x3 ▪ It is not part of our job description, therefore, negative x3
08	What incentives does [REDACTED] provide you if you practice Kaizen? <ul style="list-style-type: none"> ▪ You get a bigger bonus x2 ▪ NONE !! x2 ▪ Promotions ▪ Boss says “good work!”
09	What would it take to get you to practice Kaizen skills more regularly? <ul style="list-style-type: none"> ▪ Expose more staff to it ▪ Use temps to free up some of my time ▪ Having my superior expect me to use it ▪ More time ▪ Monetary incentives ▪ Exposure to more of the companies systems ▪ Its all based on individual drive
10	Your [REDACTED] <i>Core Values</i> and training in them in 2000-1 stressed, among other things, problem-solving, creative thinking, and self-motivation. To what degree are these behaviours rewarded by the system and how and to what degree are they stressed by your superior?
	PART I <ul style="list-style-type: none"> ▪ None x 6 ▪ Many managers don’t practice them x 4 ▪ Some innovators are considered troublemakers PART II <ul style="list-style-type: none"> ▪ Motivational e-mail ▪ They model the values ▪ They expect us to do it, but don’t walk the talk themselves x 4 ▪ Impromptu discussions
11	How much did your superior know about your Kaizen workshop and the CIE documentation requirement? <ul style="list-style-type: none"> ▪ She did not know her role or to get CIE from trainees ▪ I don’t think they knew anything x 4 ▪ They were fully aware [not true according to this person’s superior]
12	What interactions, if any, did you and your superior have about the course or using the new skills?

	<ul style="list-style-type: none">▪ None x4▪ I told my boss I was on a course where nothing was new to me It is not part of our job description; therefore none▪ What I learned▪ How we can use it
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Appendix P

Kaizen Workshop Quiz Scores

Kaizen Workshop Quiz Scores: GROUP 1										
ITEM No	pts	A-2	A-3	D-1	F-1	H-1	I-1	K-2	M-2	AVG
1	1	1	1	1	1	1	1	1	1	
2	1	1	1	1	1	1	1	1	1	
3	1	1	1	0	1	0	1	1	1	
4	1	1	1	1	1	1	1	1	1	
5	1	1	1	1	1	1	1	1	1	
1	1	1	1	1	1	1	1	1	1	
2	1	1	1	1	1	1	1	1	1	
3	3	2	1	2	3	1	1	1	3	
4	2	2	2	1	1	2	1	1	1	
5	1	1	1	1	1	1	1	0	1	
6	5	5	3	4	5	2	0	1	2	
7	6	6	6	5	6	6	4	6	6	
8	11	11	8	11	10	11	9	11	9	
TOT	35	34	28	30	33	29	23	27	29	0
%		97%	80%	86%	94%	83%	66%	77%	83%	83%
DAY-2										
1	2	2	2	2	N/A	2	N/A	N/A	0	
2	3	0	0	0		0			0	
3	1	0	1	1		0			1	
4	3	3	0	3		1			0	
5	2	2	2	2		1			2	
6	1	1	1	0		1			1	
7	2	2	2	2		0			0	
8	2	1	2	2		1			0	
1	15	12	13	13		11			11	
2	6	0	6	2		1			0	
3	4	0	0	4		0			0	
4	5	4	5	4		5			5	
5	2	2	0	2		2			2	
6	5	5	2	4		4			5	
7	13	12	0	13		13			13	
TOT	66	46	36	54		42			40	
%		70%	55%	82%		64%			61%	66%
Course %		83%	67%	84%		73%			72%	75%

Kaizen Workshop Quiz Scores: GROUP 2 & TOTAL							
ITEM		F-2	H-2	K-1	K-3	GROUP-2	GP 1 & 2
No	pts					AVG	AVG
1	1	1	1	1	1		
2	1	1	1	1	1		
3	1	1	1	1	1		
4	1	1	1	1	1		
5	1	1	1	1	1		
1	1	1	1	1	1		
2	1	1	0	1	1		
3	3	2	2	2	3		
4	2	2	1	1	1		
5	1	1	1	1	1		
6	5	3	3	3	3		
7	6	6	2	6	6		
8	11	9	9	10	9		
TOT	35	30	24	30	30		
%		86%	69%	86%	86%	81%	83%
DAY-2							
1	2	2	2	2	1		
2	3	0	0	1	0		
3	1	1	1	0	1		
4	3	2	3	3	3		
5	2	2	1	2	0		
6	1	1	0	1	1		
7	2	2	0	1	2		
8	2	0	0	2	1		
1	15	13	13	11	13		
2	6	5	6	3	6		
3	4	4	4	0	4		
4	5	3	5	4	2		
5	2	2	2	2	2		
6	5	4	5	5	5		
7	13	13	13	13	13		
TOT	66	54	55	50	54		
%		82%	83%	76%	82%	81%	80%
Course %		84%	76%	81%	84%	81%	82%

Appendix Q

Workshop Evaluation by Participants (Kaizen)

WORKSHOP EVALUATION by PARTICIPANTS

Please circle score from 1 to 10 for each item, and fill in the blanks with your comments and suggestions.

Program:		Group:	
Enterprise:		Date(s):	

1.0	<u>LEARNING CONTENT & ENVIRONMENT</u>	Poor - Average - Excellent
1.1	Helped Me To Solve My Real Problems	1 2 3 4 5 6 7 8 9 10
1.2	The Usefulness Of The Learning Materials Supplied	1 2 3 4 5 6 7 8 9 10
1.3	Level Of Interaction With/Between Participants	1 2 3 4 5 6 7 8 9 10
1.4	Mix And Amount Of Lectures vs. Activities/Exercises	1 2 3 4 5 6 7 8 9 10
1.5	Pace Of The Programme (too fast or too slow?)	1 2 3 4 5 6 7 8 9 10
1.6	Real-Life or local Examples/Studies Used	1 2 3 4 5 6 7 8 9 10
1.7	Newness Of The Content (or did you know it already)	1 2 3 4 5 6 7 8 9 10
1.8	Support to Transfer Skills Back-On-The-Job	1 2 3 4 5 6 7 8 9 10

Comments for above:

2.0	<u>FACILITATOR EFFECTIVENESS</u>	John A. Gedeon
2.1	Was technically knowledgeable in the subject area(s)	1 2 3 4 5 6 7 8 9 10
2.2	Developed rapport with participants; was interesting & fun	1 2 3 4 5 6 7 8 9 10
2.3	Was easy to understand and follow in presentations	1 2 3 4 5 6 7 8 9 10
2.4	Skill at facilitation of exercises and "processing" learning	1 2 3 4 5 6 7 8 9 10
2.5	Gave enough time for practice and feedback on learning	1 2 3 4 5 6 7 8 9 10
2.6	Was sensitive to the needs & questions of participants	1 2 3 4 5 6 7 8 9 10
2.7	Discussions/activities focused on learning objectives	1 2 3 4 5 6 7 8 9 10

Comments to support your ratings above:

3.0	<u>OVERALL EFFECTIVENESS OF WORKSHOP</u>	1 2 3 4 5 6 7 8 9 10
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Comments:

4.0	What is the most important thing that you learned?
5.0	What <u>one</u> thing are you specifically going to do differently because of this programme? (Do <u>not</u> say: "Put into practice what I have just learned")
6.0	What will be your biggest obstacle in putting into practice what you have just learned?
7.0	What topics/subjects would you like covered in future sessions?
8.0	Would you recommend this course to others in your situation? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Not Sure
9.0	Does your boss need to take this course? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Not Sure

☐ See Reverse Side for additional comments

Workshop Evaluation by Participants
Kaizen Workshop

		KAIZEN GROUP 1						KAIZEN GROUP 2				BOTH GROUPS
#	ITEMS	TRAINEE SCORES					AVG	TRAINEE SCORES			AVG	AVG
1.1	Solve Problems	8	7	7	9	8	7.8	N/a	6	7	6.5	7.3
1.2	Usefulness Matl's	7	7	8	N/a	9	7.8	N/a	6	10	8.0	7.8
1.3	Part Interaction	6	8	7	10	8	7.8	10	8	10	9.3	8.4
1.4	Activity Mix	7	7	9	8	9	8.0	9	8	9	8.7	8.3
1.5	Pace	6	6	7	8	8	7.0	8	6	9	7.7	7.3
1.6	Real Examples	8	7	9	9	10	8.6	8	8	10	8.7	8.6
1.7	Newness	8	6	5	8	7	6.8	6	8	9	7.7	7.1
1.8	Transfer Support	8	7	3	10	7	7.0	6	7	9	7.3	7.1
2.1	Technically Comp	8	7	9	9	10	8.6	9	8	10	9.0	8.8
2.2	Rapport & Fun	6	7	8	9	10	8.0	10	7	10	9.0	8.4
2.3	Understandability	7	6	8	9	10	8.0	9	8	10	9.0	8.4
2.4	Processing	7	7	9	8	10	8.2	9	8	10	9.0	8.5
2.5	Practice & Feedback	8	6	9	7	10	8.0	9	8	10	9.0	8.4
2.6	Sensitive	8	7	9	9	10	8.6	10	7	10	9.0	8.8
2.7	Objective-Focused	7	7	8	10	10	8.4	10	8	10	9.3	8.8
3.0	Overall Effective	8	7	7	9	9	8.0	8	8	9	8.3	8.1
8.0	Recommend?	Y	Y	Y	Y	Y	100%	Y	Y	Y	100	100%
9.0	Boss Take Course?	Y	N	Y	N	Y	60%	Y	Y	Y	100	75%

Note: comments in normal font are from Group 1 and italics are Group 2

ITEM	<u>WRITE-IN COMMENTS ON EVALUATION SHEET (KAIZEN)</u>
1.0	LEARNING CONTENT & ENVIRONMENT <ul style="list-style-type: none"> These are very useful & I commit to use this at my workplace and to help others <i>Overall good program.</i>
2.0	FACILITATOR EFFECTIVENESS <ul style="list-style-type: none"> These are very good for our organization. It takes time to fully grasp the principles and applications. Facilitator was knowledgeable on the topics presented and was well prepared.
3.0	OVERALL WORKSHOP EFFECTIVENESS <ul style="list-style-type: none"> This workshop was good. There were a few setbacks that were not the facilitator's fault.
4.0	MOST IMPORTANT THING YOU LEARNED <ul style="list-style-type: none"> How to ID problems, causes, & solutions (x2). Matches: Problems to Solutions. This will really help me in my work. I will be able to assist a lot of people in our organization. A problem is really a gap between what you have presently and what you

	<p>want (x2).</p> <ul style="list-style-type: none"> ▪ How to use the technique of problem solving ▪ <i>That Kaizen is continuing to improve at your job all the time.</i> ▪ <i>Finding solutions to problems.</i> ▪ <i>The art of problem solving.</i>
5.0	<p>WHAT ARE YOU GOING TO DO DIFFERENTLY</p> <ul style="list-style-type: none"> ▪ Think more critically. ▪ Writing problem statements. This is new to me. It's fantastic. ▪ Start looking at system solutions instead of trying to fix people. ▪ Approaches to solve problems. ▪ Communicate/have dialogue with my stakeholders. ▪ <i>Label the printer at the office.</i> ▪ <i>I will come up with solution parameters.</i> ▪ <i>Look at problems differently.</i>
6.0	<p>BIGGEST OBSTACLE</p> <ul style="list-style-type: none"> ▪ Organizational culture. ▪ My own initiative to be proactive. ▪ My limited circle of influence in implementing changes. ▪ Time. ▪ <i>None</i> ▪ <i>Me and Workers</i> ▪ <i>N/a</i>
7.0	<p>FUTURE COURSES DESIRED</p> <ul style="list-style-type: none"> ▪ Strategic & Systems thinking. ▪ Developing problem statements. ▪ <i>Job Aids.</i>

Appendix R

Transfer Survey (Relapse Prevention Trainees)

<i>Transfer Survey</i>		GROUP: <input type="radio"/> Kaizen Only <input checked="" type="checkbox"/> Relapse Prev. <input type="radio"/> Superiors <input type="radio"/> Key Managers	
Name		Title	
Location	<input type="radio"/> HQ <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	Date	

See Kaizen Transfer Survey in Appendix O for names.

RELAPSE PREVENTION	
01	How effective was the Relapse Prevention session in helping you to use your new Kaizen skills at work? What worked and did not work?
	PART I <ul style="list-style-type: none"> ▪ Not at all ▪ No impact ▪ It was great PART II <ul style="list-style-type: none"> ▪ The barriers discussion was useful x2 ▪ Goal setting had no impact ▪ I can't punish myself for something that I am not officially required to do ▪ It helped keep me on track ▪ The goal setting helped me ▪ I liked the rewards/punishments but did not use them
02	How many times have you looked at your <i>RP Worksheet</i> since July 11 th ? <ul style="list-style-type: none"> ▪ "ZERO" x 2 ▪ Twice a week (kept it on my desktop)
03	When 2 weeks passed and you had not solved a problem, what actions did you take? <ul style="list-style-type: none"> ▪ I remembered that I need to start to look for something to improve. ▪ Forgot about my RP learning; did not relate my improvement event to Kaizen
04	When a month passed and you had not solved a problem, did you use any self-imposed consequences that you had specified on your <i>RP Worksheet</i> ? If not, why not? <ul style="list-style-type: none"> ▪ N/A (they had made improvements) x 2 ▪ Forgot all about it
05	What role did the email reminder notices from the HR department play in the implementation of your Kaizen training? <ul style="list-style-type: none"> ▪ Reminded me to start thinking about things to improve x 3
06	How much did your superior know about your RP session and the your fortnightly reporting requirements? <ul style="list-style-type: none"> ▪ Nothing ▪ Don't know ▪ Fully aware [this was not true when I interviewed his boss]
07	What interactions, if any, did you and your superior have about the RP session? <ul style="list-style-type: none"> ▪ None x3
08	Do you feel that the RP strategy is an effective method to get trainees to practice new skills? <input type="radio"/> Yes x 3 <input type="radio"/> No Why or why not? What could be changed about it to make it

	more effective?
	<p>PART I</p> <ul style="list-style-type: none"> ▪ The 7-steps were explicit and easy to follow ▪ The discussion on how to overcome organizational barriers was helpful ▪ RP concept is good because it reminds me x2 ▪ I can use my new skills without a directive from my boss ▪ It reinforces my Kaizen skills <p>PART II</p> <ul style="list-style-type: none"> ▪ We need reminders like card or posters ▪ Did not think HR would do anything with my reports or CIE's, this needs more explanation ▪ Have an incentive like a suggestion system is based on ▪ Have public acknowledgement of my achievements ▪ It was too rushed, should be at least a full day ▪ There were only 5 participants, have more so we can share problems, solutions, and network

Appendix S

Relapse Prevention Quiz Scores

RELAPSE PREVENTION QUIZ SCORES						
ITEM	TRAINEES					
	F-1	K-2	A-3	A-2	M-2	
1	10	10	0	N/A	N/A	
2	10	0	10			
3	10	10	10			
4	0	0	0			
5	10	10	10			
6	10	10	0			
7	10	10	10			
8	10	0	10			
9	5	5	10			
10	10	10	10			
11	11	11	7			GROUP AVG
TOT	96	76	77			
%	86%	68%	69%			

Note: Scoring: Items #1-10 = 10 points each; #11 = 11 points; 111 maximum points

Appendix T
Transfer Survey (Superiors)

<i>Transfer Survey</i>		GROUP: <input type="radio"/> Kaizen Only <input type="radio"/> Relapse Prev. <input checked="" type="checkbox"/> Superiors <input type="radio"/> Key Managers	
Name		Title	
Location	<input type="radio"/> HQ <input type="radio"/> <input type="radio"/> <input type="radio"/>	Date	

DATE	SUPERIOR	JOB TITLE
SEP 10		HR Manager
SEP 13		Maintenance Manager

SUPERIORS' VIEWS	
01	Were you in the launching meeting for the "transfer of training" study on Friday, December, 14 th 2001 in the HR conference room? <input type="radio"/> Yes x 1 <input type="radio"/> No x 1
02	Did the study consultant and HR provide you with enough information for you to understand what was going on? Why or why not?
	<ul style="list-style-type: none"> ▪ Yes, it covered the major points ▪ Heard about it through the grapevine and e-mail, but I did not have enough information (my reaction was "what again?" "what will they think of next?")
03	What is your understanding of the purpose of the study?
	<ul style="list-style-type: none"> ▪ To see how effective the trainees would be at transferring their learnings ▪ Look for problems in general at PG
04	How would you define "transfer of training?"
	<ul style="list-style-type: none"> ▪ Internalizing learnings and applying skills at work ▪ From an expert to a learner [incorrect]
05	How would you describe the purpose of the Kaizen training?
	<ul style="list-style-type: none"> ▪ To help you practice new skills at work [wrong, this is RP] ▪ No idea
06	How would you describe the purpose of the Relapse Prevention session?
	<ul style="list-style-type: none"> ▪ To help you practice new skills at work ▪ No idea
07	What type of communications, if any, did you have with your subordinates who took part in the training about either the content of the training or its application
	<ul style="list-style-type: none"> ▪ None x 2; too busy
08	Did any of those trainees make any improvements in the way things are done in their area or solve any (non-routine) problems? Can you provide examples of these instances?
	<ul style="list-style-type: none"> ▪ Not that I observed ▪ Creation of a "Weekly Rolling Plan"
09	What factors do you believe affected employee documentation of how they used the training?
	<ul style="list-style-type: none"> ▪ Well, for me it was the way the document was formatted. It looked difficult. [referring to the pre-intervention survey] ▪ It was TOO simple ▪ It was not important to the trainee
10	If they did <u>not</u> use their Kaizen skills what factors would you say influenced them?

	<ul style="list-style-type: none"> ▪ A chaotic work environment ▪ A lot of tight deadlines ▪ Being understaffed ▪ N/A
11	For each of the following factors indicate how it was a positive or negative influence on employee behavior with respect to implementing what was learned in the Kaizen workshop.
11a	<p>██████'s work culture:</p> <ul style="list-style-type: none"> ▪ Many managers don't practice core values ▪ Our department encourages improvements ▪ Hinders
11b	<p>██████'s bonus/incentive system:</p> <ul style="list-style-type: none"> ▪ Core values are often ignored in the greed to secure management bonuses ▪ Hinders
11c	<p>Relationship with your trainee:</p> <ul style="list-style-type: none"> ▪ very positive ▪ Helps
11d	<p>Your work priorities for the trainee:</p> <ul style="list-style-type: none"> ▪ a distraction to Kaizen activities ▪ Helps
11e	<p>Relationships with the trainee's coworkers/teammates:</p> <ul style="list-style-type: none"> ▪ Mostly positive ▪ Helps
11f	<p>Time:</p> <ul style="list-style-type: none"> ▪ very negative; pressed x2
11g	<p>Resources:</p> <ul style="list-style-type: none"> ▪ Not a factor x2
11h	<p>Motivation:</p> <ul style="list-style-type: none"> ▪ Staff in this department have a lot of motivation x2
11i	<p>Employee's perspective on their job:</p> <ul style="list-style-type: none"> ▪ Senior staff see it more than junior staff ▪ Helps
11j	<p>Employee perceptions of YOUR priorities:</p> <ul style="list-style-type: none"> ▪ Not a deterrent as long as we communicate ▪ Helps
12	Your ██████ <i>Core Values</i> and training in them in 2000-1 stressed, among other things, problem-solving, creative thinking, and self-motivation. To what degree are these behaviours rewarded by the system and how and to what degree do you stress them with your subordinates?
	<p>PART I</p> <ul style="list-style-type: none"> ▪ These are measured in Peer Evaluation surveys and impact the bonus of management ▪ There is no consequence for unionized staff ▪ None <p>PART II</p> <ul style="list-style-type: none"> ▪ Weekly briefings ▪ Informal discussions

	<ul style="list-style-type: none"> Modeling
13	<p>Studies in the USA indicate that trainees will only practice about 10% of what they learned in the classroom when they get back on the job. Do you think that rate is higher or lower here in [REDACTED]? Explain whether you think this rate is adequate or not and why.</p>
	<p>PART I</p> <ul style="list-style-type: none"> Lower x2 <p>PART II</p> <ul style="list-style-type: none"> It is big issue, in terms of ROI and in work disruption It is significant (but we do it a lot to satisfy higher-ups)
14	<p>What do you think <u>you</u> can do in the future to help support the transfer of your subordinates' new learned skills? What changes in the system need to be made to help transfer?</p>
	<p>PART I</p> <ul style="list-style-type: none"> Weekly briefing sessions can be used to identify areas for improvement Talking with trainee after training <p>PART II</p> <ul style="list-style-type: none"> Tailor training for needs; make it relevant Don't make it HR driven Hard-link core value performance to the reward and recognition system
15	<p>Do you think that this study's objectives were worthwhile and can provide valuable information for [REDACTED] on how to improve its transfer of training rate? If you had voting power, would you have voted for or vetoed this study?</p> <p>o Voted x 2 o Vetoed</p>
	<ul style="list-style-type: none"> Yes x2
16	<p>What might have encouraged you to complete the <i>Transfer Performance Summary</i> reports?</p>
	<ul style="list-style-type: none"> My staff reminding me; I have over 30 new emails to sort through each day Getting me involved
17	<p>During the Kaizen or RP workshops (July 5-11), did you have to pull any of your trainees out of the classrooms for meetings or to attend to any urgent matters? How many times did this happen?</p>
	<ul style="list-style-type: none"> No x 2

Appendix U

Transfer Survey (Key Managers)

<i>Transfer Survey</i>		GROUP: <input type="radio"/> Kaizen Only <input type="radio"/> Relapse Prev. <input type="radio"/> Superiors <input checked="" type="checkbox"/> Key Managers	
Name		Title	
Location	<input type="radio"/> HQ <input type="radio"/> <input type="radio"/> <input type="radio"/>	Date	

Date	Key Manager	Title
SEP 9		Manager – Engineering Support Services
SEP 10		Director – Finance
SEP 11		O & M Engineer I
		Plant Manager –
		Plant Manager --
SEP 12		Director – HR
SEP 13		Operations Manager (Acting)

KEY MANAGER'S VIEWS	
01	12 supervisors voluntarily went through two days of training on Kaizen in early July, where they learned how to make minor improvements in the way things are done; after seven weeks have passed, what evidence do you have that any improvements have been made?
	1. None (do not know who was in the study) x 3 2. None (did not observe the participant in the area) x3 3. I think they are probably making some improvements
02	If you think that they are using their skills, why don't you think that they documenting it?
	1. They probably forgot about the paperwork 4. We are not a documentation culture 5. They usually only fill out standardized forms 6. The fact that it came from the instructor (Gedeon) instead of their boss 7. Plant people, more than office staff, are more likely not to document 8. Its not part of their normal job x2 9. No idea 10. They are not being rewarded/paid for it 11. There is no consequence for non-compliance 12. They don't consider it of value
03	What factors do you think keep trainees from practicing what they have learned in the classroom in general from any course they take?
	24. Not having an opportunity to use it 25. It is not supported by the boss 26. Boss demands things be done the traditional or his way 27. Learnings are too generic and can't be "translated" back at work 28. The classroom objectives are not aligned with the workplace objectives 29. No one thinks of transfer consciously 30. Some departments have anti-change cultures 31. Heavy workloads x2 32. Lack of support in general

	<p>33. Some trainees are not motivated</p> <p>34. Some trainees do not take ownership of their area</p> <p>35. Trainee did not grasp content in the classroom</p> <p>36. Some trainees cannot internalize/integrate learnings</p> <p>37. Trainees are habit-bound and like to stay in their “comfort zone”</p> <p>38. They forget a lot of what they learn</p> <p>39. Trainee’s boss is not aware of what they learned</p> <p>40. Boss is untrained in the new skill</p> <p>41. Trainee is not/does not feel authorized to use the new skills</p> <p>42. Content is not seen as relevant or appropriate by trainees</p> <p>43. Trying new things exposes people to risk of failure or criticism</p> <p>44. Not supported in the work environment</p> <p>45. Negative reactions by stakeholders</p> <p>46. Trainee did not agree with content</p> <p>47. The trainee does not want to leave their “comfort zone”</p>
04	<p>Your [REDACTED] <i>Core Values</i> and training in them in 2000-1 stressed, among other things, problem-solving, creative thinking, and self-motivation. To what degree are these behaviours rewarded by the system and how and to what degree do you stress them with your subordinates?</p>
	<p>PART I</p> <ol style="list-style-type: none"> 1. There is no conscious reward 2. They are measured in the performance appraisal but not rewarded 3. Spot awards x2 but many managers don’t use them effectively 4. Good performance appraisals 5. There is no direct reward for most values, but there is punishment for the breach of some (acting unethically) 6. The roll-out should have been senior management first, then downward to staff (it got watered down/diluted) 7. It promotes a “everyman for himself” atmosphere as there are no direct team incentives 8. There is some recognition but varies by superior 9. Everybody at a certain level gets the same reward no matter what they do (effort doesn’t count) <p>PART II</p> <ol style="list-style-type: none"> 1. Explicitly, only at performance appraisal time 2. Implicitly, by modeling the behaviors myself x 5 3. It comes out in how I coach my staff in everyday tasks x 4 4. I use my personal values; the way core values are packaged is not useful to me 5. I use values in general, not the term “core values” 6. I preach “performance management” and use this as a platform instead of core values
05	<p>Studies in the USA indicate that trainees will only practice about 10% of what they learned in the classroom when they get back on the job. Do you think that rate is higher or lower here in [REDACTED] ([REDACTED])? Explain whether you think this rate is adequate or not and why.</p>
	<p>PART I</p>

	<ol style="list-style-type: none"> 1. Lower in general x2 2. Lower for soft skills 3. About the same as USA for hard skills 4. About 20% here 5. About 40% in my unit 6. About the same <p>PART II</p> <ol style="list-style-type: none"> 1. No, it is a significant problem x4 2. It is a significant problem and means we are wasting 90% of our training budget 3. There is always room for improvement x 2
06	<p>What do you think <u>you</u> can do in the future to help support the transfer of your subordinates' new learned skills? What changes in the system need to be made to help transfer?</p>
	<p>PART I</p> <ol style="list-style-type: none"> 10. Empower my staff x2 11. Give staff more support 12. Supervisor post-training briefing with trainee 13. Gain the trainee's commitment 14. Provide staff with more opportunities to use the new skill 15. Have trainee share learnings with other staff 16. Have trainee make recommendations of how to incorporate the learnings into the system x2 17. Coach trainee while they are implementing 18. Make the work environment friendly for skill use <p>PART II</p> <ol style="list-style-type: none"> 10. Alignment of classroom and workplace objective 11. Establish standards that demand the use of the new skill 12. Customize the training for specific tasks they will be doing at work 19. Allow management more flexibility (from HR policies) to place staff where their talents and interests lie; get some managers to be responsive to this idea 20. Making staff happy, then they will be motivated, then they will perform 21. Provide the training just-in-time so it's relevance is seen and nothing forgotten 22. Sell the training and whet the appetite then later on conduct training 23. Look at the job design so that it permits use of new skills 24. HR must help line management do all of the above
07	<p>How do managers in [REDACTED] think about surveys and other data collection devices in general, no matter what the study or evaluation is about? How might you explain the low compliance rate with completing the reporting instruments in this study?</p>
	<p>PART I</p> <ol style="list-style-type: none"> 1. They think they are good, once they buy-in 2. They must be relevant or something they can identify with 3. It is useless paperwork that distracts them from their core duties x 4

	<ol style="list-style-type: none"> 4. It is seen as doing a favour for someone (1st round of HR Benchmark survey) 5. They are too focused on their work to “take it on” 6. It is seen as a form of harassment <p>PART II</p> <ol style="list-style-type: none"> 1. Surveys were too long, it seemed onerous 2. No one reminded me 3. Our system only rewards today’s operational/financial performance and not innovations needed for tomorrow or non-core activities 4. Not marketed 5. They don’t see the value in it 6. No consequences
08	<p>How committed do you think the managers were to participation in this study? Were there factors that might have improved the company’s commitment?</p> <p>PART I</p> <ol style="list-style-type: none"> 1. Very little commitment x 5 2. Too busy to give it much effort 3. No idea <p>PART II</p> <ol style="list-style-type: none"> 15. Any study must be sold x 2 16. Sell it at Plant Manager level first 17. It can’t just be an HR thing 18. HR must organize, support, and improve their timing better; don’t dump things on us (made employees go up to third floor for a survey instead of making it convenient) x 3 19. It must be driven from the top 20. More “hand holding;” have the requestor come with the survey in person 21. Make the concept (transfer) less abstract and more real 22. Give incentives to participants (pens, key chains, meal chits, money, etc.) x2 23. There must be more interaction between each level of management; not just issuing directives or dumping paperwork on people 24. Make it a metric at the highest level that the MD endorses and reviews 25. Write it into the performance contract 26. It must be linked to the person’s job description and WIIFM 27. Don’t say it was for John’s dissertation 28. More than one HR champion for any organizational initiative
09	<p>What recommendations would you make for future studies such as this?</p> <p>Same question as PART II above.</p>

Appendix V

Workshop Evaluation by Participants (RP)

Note: See Appendix Q for Evaluation instrument.

Workshop Evaluation by Participants					
Relapse Prevention Session					
#	ITEMS	TRAINEES			AVG
1.1	Solve Problems	8	7	7	7.3
1.2	Usefulness of Matl's	10	8	6	8.0
1.3	Part Interaction	9	7	8	8.0
1.4	Activity Mix	9	7	5	7.0
1.5	Pace	10	7	6	7.7
1.6	Real Examples	9	7	7	7.7
1.7	Newness	9	8	8	8.3
1.8	Transfer Support	7	8	7	7.3
2.1	Technically Comp	10	8	8	8.7
2.2	Rapport & Fun	10	7	7	8.0
2.3	Understandability	10	8	8	8.7
2.4	Processing	10	7	8	8.3
2.5	Practice & Feedback	10	7	7	8.0
2.6	Sensitive	10	8	7	8.3
2.7	Objective-Focused	10	8	9	9.0
3.0	Overall Effective	N/a	8	7	7.5
8.0	Recommend?	Y	Y	Y	100%
9.0	Boss Take Course?	Y	Y	Y	100%

Note: All point scales have 10 maximum points.

ITEM	WRITE-IN COMMENTS ON EVALUATION SHEET (RP)
1.0	LEARNING CONTENT & ENVIRONMENT (no comments)
2.0	FACILITATOR EFFECTIVENESS (no comments)
3.0	OVERALL WORKSHOP EFFECTIVENESS (no comments)
4.0	MOST IMPORTANT THING YOU LEARNED <ul style="list-style-type: none"> Problems are simply gaps that require some attention to close. The most important thing to prevent relapses is to develop a support system & incentives. To create the problem statement. Actually identifying what the problem is.
5.0	WHAT ARE YOU GOING TO DO DIFFERENTLY <ul style="list-style-type: none"> Try to get as much input/feedback from stakeholders. Focus on strategies to overcome barriers and put systems of support/rewards and incentives in place.

	<ul style="list-style-type: none">▪ Label things properly to make them easy to access by all.
6.0	BIGGEST OBSTACLE <ul style="list-style-type: none">▪ Being overwhelmed by the system that is not willing to change.▪ Complacency.▪ Time constraints.
7.0	FUTURE COURSES DESIRED (no comments)

END