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The role of supervisory support in the transfer of management skills

Philip M. Orr
San Jose State University

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**The role of supervisory support in the transfer of management
skills**

Orr, Philip M., M.S.

San Jose State University, 1990

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**THE ROLE OF SUPERVISORY SUPPORT
IN THE TRANSFER OF MANAGEMENT SKILLS**

A Thesis

**Presented to
the Faculty of the Department of Psychology
San Jose State University**

**In Partial Fulfillment
of the Requirements for the Degree
Master of Science**

Philip M. Orr

August, 1990

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Abstract

While American industries annually spend up to \$100 billion on training and development activities, not more than 10% of this expenditure actually results in a transfer to the job (Georgenson, 1982). With a 90% failure rate, some aspects of the training process are in need of revision. This study identified what trainees perceived to constitute supervisory support in the process of transferring skills from the seminar to the job. Additionally, relationships between the transfer of skills and the quality and quantity of support were explored. Subjects were 79 male and females from five San Francisco Bay Area corporations. A factor analysis of the 13 supervisory support items produced a four-factor solution accounting for 69% of the variance. Regression analyses explored the relationship between supervisory support and the transfer of skills. The importance of support of training is discussed.

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**The Role of Supervisory Support
in the Transfer of Management Skills**

Running head: SUPERVISORY SUPPORT

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Abstract

While American industries annually spend up to \$100 billion on training and development activities, not more than 10% of this expenditure actually results in a transfer to the job (Georgenson, 1982). With a 90% failure rate, some aspects of the training process are in need of revision. This study identified what trainees perceived to constitute supervisory support in the process of transferring skills from the seminar to the job. Additionally, relationships between the transfer of skills and the quality and quantity of support were explored. Subjects were 79 male and females from five San Francisco Bay Area corporations. A factor analysis of the 13 supervisory support items produced a four-factor solution accounting for 69% of the variance. Regression analyses explored the relationship between supervisory support and the transfer of skills. The importance of support of training is discussed.

The Role of Supervisory Support in the Transfer of Learned Skills

Training and management development activities are currently receiving increased attention in both industrial and academic settings. It is estimated that while American industries annually spend up to \$100 billion on training and development, not more than 10% of these expenditures actually result in transfer to the job (Georgenson, 1982). This estimate implies that with a 90% failure rate, some aspects of training and development processes are in need of revision. When examining the effectiveness of a training program, most organizations say they want to consider bottom line results. However, human-resource managers and researchers have paid little attention to such basic questions as: (a) Why some training programs are more effective than others and (b) why training is effective for some individuals and not effective for others? Indeed, answers are still needed to many questions including: (a) Why do some skills transfer while others do not, and (b) How may training programs be supported by the organization to maximize their effectiveness?

Baldwin and Ford (1988) theorize that transfer of management-skills training, a primary and obvious concern of the training field, has three major determinants: Trainee characteristics, training design, and work environment. Three categories of trainee characteristics--abilities, personality variables, and motivation levels--are thought to determine whether an individual will initially learn, and subsequently transfer, new skills. Training design includes such factors as the application of principles of learning, the specific sequencing of objectives and, most importantly, the content of a program. The work environment to which the trainee will return

also plays a vital role in the transfer process. That is, if the necessary supervisory support is not available, if the opportunity to utilize the new skills is not present, or if critical resources are absent, learning and retention of the material may be adversely affected. Even if the material is initially learned, without support, resources, and the opportunity to use the new skills, generalization and transfer to the actual work situation are unlikely to occur.

Apparently lacking is research on transfer of training with any kind of focus on measures of supervisory support, even though support for training has been cited as a key work-environment variable affecting the transfer process (Fleishman, 1953; House, 1968). Huczynski and Lewis (1980) contend that employees who perceive that a training program is important to the supervisor will be more motivated to attend, to learn, and to transfer trained skills to the job. While support is logically a critical variable in the transfer process, development of an operational definition and measurement of supervisory support has lagged far behind claims regarding its importance. Moreover, the skills, knowledge, and attitudes which transfer from the training situation to the work situation, and, are most sensitive to supervisory support, have not been investigated.

This study was designed as an attempt to identify what, specifically, is perceived by trainees to constitute supervisory support in the process of transferring behavioral skills from the training seminar to the actual work environment. The study also sought to identify perceived relationships between the transfer of trained skills to the work environment and the quality and quantity of supervisory support.

Elaborating on Baldwin and Ford (1988) and Noe (1986), supportive behaviors that a supervisor may display to a trainee have been defined. They are listed in Figure 1.

The present study asked personnel who have recently participated in training in management skills to indicate: (a) The skill areas in which they have received training, (b) the degree to which each of those skills has transferred to the job, (c) the level of each skill possessed by their supervisors, and (d) the nature, frequency, and importance of supervisory support they have received. By their response, trainees made estimates of transfer of training, as well as supervisory support of training. While this design left open the question of the objective reality of some observed relationships and the possibility of spurious results, it was certainly important and useful to begin the investigation of supervisory support of management training by systematically examining the perceptions of those who need and receive it.

Hypothesis 1 contends that there are one or more underlying factors in the set of 13 defined supervisory behaviors.

Martin and Pear (1983), among others, argue that reinforcement is most effective when it is directed towards a specific behavior. That is, a reinforcer which increases the likelihood that a particular behavior occurs may not be effective when applied to another behavior. While reinforcement is only one element of supervisory support, Decker and Nathan (1985) argue that the trainee must be rewarded for the use of specific behaviors on the job if that new behavior is to be maintained. It is reasonable to expect that different

Figure 1

Supportive supervisory behaviors

Items	Abbreviation
1. Participate in defining training objectives	Defobj
2. Clear the way for trainees to attend training sessions	Clrway
3. Spend time with trainees to find out what they are learning and to answer questions	Spndtm
4. Participate in selecting the employees for a training session	Chsemp
5. Attend training session kickoffs and graduation	Attend
6. Participate in training sessions to learn the same skills taught to a trainee	Lrnsme
7. Encourage trainees to do well in sessions	Encrge
8. Show confidence in trainees' ability to master use of the new skills	Cnfdnc
9. Ensure trainees have the necessary resources available to use the new skills	Resrcs
10. Model appropriate use of the skills	Model
11. Encourage trainees to apply the skills	Apply
12. Coach trainees in the skills when they make an effort to use them	Coach
13. Reinforce trainees' use of the skills	Renfrc

types of support would be effective in assisting transfer of different kinds of skills.

Hypothesis 2 contends the relationship between perceived supervisory support and self-reported transfer of training will differ among the managerial-skill factors.

Method

Subjects

Seventy-nine trainees, 28 males and 51 females, from five San Francisco Bay Area corporations voluntarily took part in this study. Subjects were invited to participate by their director of training and development given that they had undergone at least one management training seminar in the last two years.

The average subject had participated in a management training program within the last six months and had been in their current position up to two years. Further, they had been in a management position for three to six years and had worked with their current supervisor up to two years. Additionally, they held a bachelor's degree and had participated in four management training programs within the last two years. The average subject rated these programs as being fairly useful.

Procedure

Subjects completed the questionnaire (see Appendix) either in small groups or in their offices. Subjects were asked to identify the specific topics of the management training programs in which they had participated within the last two years. Subjects were then asked to rate the frequency and importance of supportive behaviors their supervisors demonstrated before, during, and

after the training programs. Subjects responded using a five-point Likert-type rating scale (5: very important; 1: not at all important).

The skills on which subjects were questioned comprise components of the Wheel of Managerial Success (Davis, Hellervik & Sheard, 1986). Indeed, the grouping of skills into dimensions rests on a long tradition of managerial skill analysis (Thornton & Byham, 1983). Shown in Figure 2, the wheel is primarily composed of the following types of skills: administrative, leadership, interpersonal, communicative, personal adaptability, personal motivation and cognitive. This study was confined to behavioral management skills and did not include occupational/technical knowledge.

Results

Underlying Factors in Supervisory Support

Subjects were asked to complete the questionnaire for each training topic they had participated in within the last two years. As might be expected, subjects had received training in a variety of skill areas but never in all 16. This resulted in an inordinate amount of missing data. Analyses could only be performed on those training topics where a sufficient number of subjects responded. For statistical purposes, those training topics having at least 40 subjects were included in all further analyses (see Figure 3). Subjects' ratings of the importance of seven specific support behaviors (items 7-13 in Figure 1) for 4 of the 16 training topics and their ratings on the importance of six general support behaviors (items 1-6 in Figure 1) were subjected to five exploratory maximum-likelihood factor analyses. In each analysis factors with eigenvalues greater than 1.0 were extracted from the equation. Varimax

Figure 2

Wheel of Managerial Success

Note. Adapted from Davis, B. L., Hellervik, L. W. & Sheard, J. L. (Eds.). (1986). Successful manager's handbook. Minneapolis, MN: Personnel Dimensions.

Figure 3

Number of subjects responding per training topic

	Training Topic	n
1.	General support variables	75
2.	Leadership Style and Influence	57
3.	Planning and Organizing	51
4.	Human Relations Skills	49
5.	Staffing, Coaching, and Developing People	41
6.	Time Management	37
7.	Motivating Others	34
8.	Oral Communication	28
9.	Conflict Management and Negotiating	26
10.	Problem Analysis and Decision Making	20
11.	Group Skills	20
12.	Delegating and Controlling	20
13.	Stress Management/Personal Adaptability	17
14.	Written Communication	16
15.	Personal Motivation	12
16.	Innovation and Resourcefulness	12
17.	Informing	10

rotation was employed on solutions which produced more than one factor. Items loading at (.50) were regarded as significant.

Hypothesis 1 was supported as supervisory support appears to take on a multidimensional definition. The first six items of support were associated with specific training topics. These general support variables were rated with a considerable amount of variability, as evidenced by the means ranging from 2.0 to 3.8 (see Table 1). The correlation matrix of these variables is shown in Table 2. The generally weak correlations among the six variables suggests that they may in fact be identifying different types of support. Table 3 presents the results of the maximum-likelihood factor analysis on these six items. The first factor comprises only one item, Define Training Objectives, but accounts for 24.7% of the variance. The second factor has an eigenvalue of 0.97 with three items loading on it, accounting for an additional 16.1% of the variance. The three items comprising the second factor are: Learn Same Skills Taught to Trainees (leading item), Spend Time to Find Out What is Being Learned, and Attend Training Kickoffs and Graduation. Considered together, this two-factor solution accounts for 40.8% of the variance.

Table 4 presents the mean ratings for the first specific training topic, Planning and Organizing. The subjects' importance ratings of the seven kinds of supervisory support were not as varied, with means ranging from 3.0 to 3.8 on a five-point scale. Table 5 presents the correlation matrix of the variables. The correlations between these seven variables are stronger than among the six general items and tend to suggest one underlying factor in the type of support perceived by trainees to exist. Table 6 presents the results of this maximum-likelihood factor analysis. The one-factor solution is defined by all

Table 1

Means and Standard Deviations of Importance Ratings
for General Support Variables

Item	Mean	SD
Define training objectives	3.41	1.10
Clear the way to attend training	3.88	1.27
Spend time to find out what is being learned	3.11	1.10
Choose employees for training	2.70	1.09
Attend training kickoffs and graduation	2.04	1.12
Learn same skills taught to trainees	2.94	1.20

Table 2

Intercorrelation Matrix of Importance Ratings
for General Support Variables

	Defobj	Clrway	Spndtm	Chsemp	Attend	Lrnsm
1. Defobj	1.000					
2. Clrway	.251	1.000				
3. Spndtm	.417	.020	1.000			
4. Chsemp	.358	.105	.231	1.000		
5. Attend	.168	.046	.349	.023	1.000	
6. Lrnsm	.292	.222	.459	.182	.372	1.000

Note. The correlation coefficient had to reach a value of .217 to be significant at the .05 level and .283 to be significant at the .01 level.

Table 3

Factor Loading Matrix of Importance Ratings
for General Support Variables

Items	Factor		Communality
	I	II	
Define training objectives	.99	.14	.99
Choose employees for training	.34	.14	.14
Clear the way to attend training	.23	.11	.07
Learn same skills taught to trainees	.20	.70	.52
Spend time to find out what is being learned	.34	.57	.44
Attend kickoffs and graduation	.09	.52	.28
Eigenvalues	1.48	.97	
% of variance explained	24.71	16.10	Total: 40.8

Table 4

Means and Standard Deviations of Importance Ratings
for Items in Planning and Organizing

Item	Mean	SD
Encourage to do well	3.00	1.27
Show confidence in ability to use	3.84	1.25
Ensure resources are present	3.70	1.21
Model	3.64	1.06
Encourage to apply	3.66	1.21
Coach	3.46	1.23
Reinforce	3.62	1.14

Table 5
Intercorrelation Matrix of Importance Ratings
for Items in Planning & Organizing

	Enрге	Cnfdnc	Resrcs	Model	Apply	Coach	Rnfrс
1. Enрге	1.000						
2. Cnfdnc	.676	1.000					
3. Resrcs	.407	.530	1.000				
4. Model	.450	.446	.624	1.000			
5. Apply	.543	.500	.610	.713	1.000		
6. Coach	.466	.445	.761	.595	.684	1.000	
7. Rnfrс	.503	.485	.666	.674	.779	.780	1.000

Note. The correlation coefficient had to reach a value of .273 to be significant at the .05 level and .354 to be significant at the .01 level.

Table 6

Factor Loading Matrix of Importance Ratings
for Items in Planning and Organizing

	Factor	
Items	I	Communality
Reinforce	.89	.36
Encourage to apply	.85	.36
Coach	.85	.62
Ensure resources are present	.79	.59
Model	.77	.73
Encourage to do well	.59	.72
Show confidence in ability to use	.59	.79
<hr/>		
Eigenvalue	4.15	
% of variance explained	59.40	Total: 59.4

seven items. They are: Reinforce (leading item), Encourage to Apply, Coach, Provide Necessary Resources, Model, Encourage to Do Well and Show Confidence in Ability to Use. This factor solution accounts for 59.4% of the variance among the ratings of these seven items.

Table 7 presents the means and standard deviations of the importance ratings for the second training topic, Staffing, Coaching & Developing People. Subjects attributed considerable importance to the support variables with means ranging from 3.5 to 4.1. Table 8 presents the correlation matrix of the support variables for this training topic. The correlations among these seven variables are strong and suggest that perhaps one underlying type of support is being measured. The results of this maximum-likelihood factor analysis are shown in Table 9. Once again the one-factor solution is defined by all seven items. However, the leading item was Encourage to Apply and the order of the other loadings differed. This factor solution accounts for 65.1% of the variance.

Table 10 presents the means and standard deviations for the third training topic, Human Relations Skills. Subjects rated the variables consistently high as evidenced by means ranging from 3.5 to 4.9. The correlation matrix of the variables is shown in Table 11. While the strength of the correlations varies more among these seven variables than in the other two training topics, a number of strong relationships are evident. The results of this maximum-likelihood factor analysis are shown in Table 12. This one-factor solution is yet again defined by all seven items. However, the leading item was Reinforce and the order of the other loadings differed. This factor solution accounts for 64.8% of the variance.

Table 7

Means and Standard Deviations of Importance Ratings
for Items in Staffing, Coaching and Developing People

Item	Mean	SD
Encourage to do well	3.51	1.34
Show confidence in ability to use	4.04	0.99
Ensure resources are present	3.85	1.21
Model	4.14	1.21
Encourage to apply	3.65	1.27
Coach	3.63	1.21
Reinforce	3.78	1.23

Table 8

Intercorrelation Matrix of Importance Ratings
for Items in Staffing, Coaching and Developing People

	Energe	Cnfdnc	Resrcs	Model	Apply	Coach	Renfrc
1. Energe	1.000						
2. Cnfdnc	.651	1.000					
3. Resrcs	.540	.653	1.000				
4. Model	.534	.467	.352	1.000			
5. Apply	.760	.817	.766	.516	1.000		
6. Coach	.635	.569	.687	.475	.800	1.000	
7. Renfrc	.611	.758	.645	.621	.791	.758	1.000

Note. The correlation coefficient had to reach a value of .304 to be significant at the .05 level and .393 to be significant at the .01 level.

Table 9

Factor Loading Matrix of Importance Ratings for
Items in Staffing, Coaching and Developing People

	Factor	
Items	I	Communality
Encourage to apply	.96	.60
Reinforce	.84	.69
Show confidence in ability to use	.83	.61
Coach	.82	.32
Ensure resources are present	.78	.92
Encourage to do well	.77	.68
Model	.56	.71
<hr/>		
Eigenvalue	4.55	
% of variance explained	65.10	Total: 65.1

Table 10

Means and Standard Deviations of Importance Ratings
for Items in Human Relations Skills

Item	Mean	SD
Encourage to do well	3.53	1.44
Show confidence in ability to use	3.81	1.19
Ensure resources are present	3.72	1.21
Model	4.94	1.24
Encourage to apply	3.79	1.16
Coach	3.55	1.25
Reinforce	3.77	1.22

Table 11

Intercorrelation Matrix of Importance Ratings
for Items in Human Relations Skills

	Energe	Cnfdnc	Resrcs	Model	Apply	Coach	Renfrc
1. Energe	1.000						
2. Cnfdnc	.819	1.000					
3. Resrcs	.397	.475	1.000				
4. Model	.651	.609	.610	1.000			
5. Apply	.614	.630	.530	.655	1.000		
6. Coach	.630	.496	.564	.753	.759	1.000	
7. Renfrc	.690	.626	.558	.794	.824	.858	1.000

Note. The correlation coefficient had to reach a value of .288 to be significant at the .05 level and .372 to be significant at the .01 level.

Table 12

Factor Loading Matrix of Importance Ratings
for Items in Human Relations Skills

	Factor	
Items	I	Communality
Reinforce	.95	.90
Coach	.89	.79
Encourage to apply	.85	.56
Model	.84	.70
Encourage to do well	.75	.56
Show confidence in ability to use	.69	.48
Ensure resources are present	.62	.38
<hr/>		
Eigenvalue	4.54	
% of variance explained	64.80	Total: 64.8

The fourth training topic used in the analysis, Leadership Style and Influence, received relatively high ratings as evidenced by means ranging from 3.1 to 3.9 (see Table 13). Table 14 presents the correlation matrix of the variables. The correlations among the seven support variables for this training topic are somewhat lower for many of the items than for the other training topics reported but all items still intercorrelate significantly. Table 15 presents the results of the maximum-likelihood factor analysis for Leadership Style and Influence. Once again this one-factor solution is defined by all seven items. However, the leading item was Coach and the order of the other loadings differed. This factor solution accounts for 59.1% of the variance.

As an interesting exploratory investigation, the final factor analysis averaged subject's importance scores across the 16 training topics. This procedure increased the number of available subjects for the analysis to 79. The six general support variables were also included increasing the number of items analyzed to 13. These data were then used in a principal-components factor analysis of the 13 supervisory support behaviors. Shown in Table 16, the means of these data range from 2.2 to 3.9. The correlation matrix of these variables is shown in Table 17. The intercorrelations among the 13 support variables are substantially lower than for the seven variables considered separately by training topics. Several variables are highly intercorrelated suggesting an underlying factor. The results of the principal-components factor analysis are shown in Table 18. The four-factor solution accounts for 69.9% of the variance among these 13 importance ratings.

Table 13

Means and Standard Deviations of Importance Ratings
for Items in Leadership Style and Influence

Item	Mean	SD
Encourage to do well	3.57	1.25
Show confidence in ability to use	3.98	1.24
Ensure resources are present	3.89	1.21
Model	3.15	1.09
Encourage to apply	3.96	1.18
Coach	3.81	1.24
Reinforce	3.98	1.19

Table 14

Intercorrelation Matrix of Importance Ratings**for Items in Leadership Style and Influence**

	Enrgc	Cnfdnc	Restcs	Model	Apply	Coach	Renfrc
1. Enrgc	1.000						
2. Cnfdnc	.591	1.000					
3. Restcs	.591	.693	1.000				
4. Model	.392	.506	.471	1.000			
5. Apply	.575	.464	.486	.606	1.000		
6. Coach	.601	.623	.575	.563	.829	1.000	
7. Renfrc	.526	.590	.497	.614	.791	.876	1.000

Note. The correlation coefficient had to reach a value of .261 to be significant at the .05 level and .339 to be significant at the .01 level.

Table 15

Factor Loading Matrix of Importance Ratings
for Items in Leadership Style and Influence

	Factor	
Items	I	Communality
Coach	.95	.90
Reinforce	.91	.83
Encourage to apply	.86	.75
Show confidence in ability to use	.67	.44
Encourage to do well	.64	.42
Model	.64	.41
Ensure resources are present	.62	.38
Eigenvalue	4.13	
% of variance explained	59.10	Total: 59.1

Table 16

Means and Standard Deviations of Importance Ratings
for 13 Supervisory Support Items

Item	Mean	SD
Define training objectives	3.41	1.11
Clear the way to attend training	3.93	1.23
Spend time to find out what is being learned	3.14	1.08
Choose employees for training	2.74	1.09
Attend kickoffs & graduation	2.20	1.27
Learn same skills taught to trainees	3.06	1.25
Encourage to do well	3.40	1.13
Show confidence in ability to use	3.83	1.04
Ensure resources are present	3.74	1.03
Model	3.89	0.99
Encourage to apply	3.74	0.99
Coach	3.57	1.03
Reinforce	3.77	1.01

Table 17

Intercorrelation Matrix of Importance Ratingsfor 13 Supervisory Support Items

	Def	Clr	Spn	Chs	Att	Lrn	Enc	Cnf	Res	Mod	App	Coa	Ren
1. Defobj	1.000												
2. Clrway	.191	1.000											
3. Spndtm	.397	.003	1.000										
4. Chsemp	.318	.094	.229	1.000									
5. Attend	.084	.074	.316	.090	1.000								
6. Lrnsmc	.212	.219	.443	.213	.476	1.000							
7. Engrge	.292	.155	.366	.072	.336	.382	1.000						
8. Cnfdnce	.302	.069	.190	.011	.158	.242	.688	1.000					
9. Resres	.174	.282	.423	.008	.394	.438	.473	.514	1.000				
10. Model	.229	.076	.287	.134	.307	.369	.391	.321	.312	1.000			
11. Apply	.415	.187	.455	.167	.295	.399	.687	.494	.474	.579	1.000		
12. Coach	.411	.066	.628	.249	.399	.413	.533	.405	.604	.450	.759	1.000	
13. Renfrc	.525	.103	.535	.236	.386	.332	.561	.502	.541	.468	.811	.824	1.000

Note. The correlation coefficient had to reach a value of .217 to be significant at the .05 level and .283 to be significant at the .01 level.

Table 18

Rotated Factor Loading Matrix of Importance Ratings
for 13 Supervisory Support Items

Items	Factors				Communality
	I	II	III	IV	
Confidence	.844	-.020	-.079	.106	.682
Encourage	.804	.216	.022	.104	.905
Apply	.780	.268	.312	.010	.617
Reinforce	.735	.295	.423	-.092	.651
Coach	.642	.447	.397	-.145	.683
Model	.474	.364	.162	-.055	.675
Resources	.588	.500	-.077	.240	.705
Attend kickoffs	.146	.813	-.030	-.016	.730
Learn sam	.183	.747	.167	.234	.659
Spend time	.316	.506	.462	-.218	.387
Choose employees	-.106	.123	.786	.082	.778
Define objectives	.393	-.079	.709	.709	.792
Clear the way	.085	.097	.120	.934	.815
Eigenvalues	5.512	1.308	1.178	1.087	
% of variance explained	42.400	10.100	9.100	8.400	Total: 69.6

The first factor accounts for 42.4% of the variance and covers six items related to behaviors during and subsequent to training: Show Confidence in Ability to Use (leading item), Encourage to do Well, Encourage to Apply, Reinforce, Coach, and Ensure Resources are Present. While Modeling the Skill does not reach the (.50) cutoff, it loads higher on this factor than on any other. Note that the seven support variables which loaded together in the separate analyses by training topic remain together as one factor in the analyses of all 13 variables. The factor structure of the six general variables is, however, somewhat different here than from the analysis of these variables alone, described previously. The second factor accounts for 10.1% of the variance and comprises four items related to indirect support prior to and during training: Attend Training Kickoffs and Graduation (leading item), Participate in Training Sessions to Learn Same Skills Taught to Trainees, Spend Time to Find out What is Being Learned, and Ensure Resources are Available. The third factor accounts for 9.1% of the variance and includes two items which are important prior to training taking place: Choose Employees for Training (leading item) followed by Define Training Objectives. The fourth factor, also important prior to training, accounts for 8.4% of the variance and two items load significantly on it: Clear the Way to Attend Training, and Define Training Objectives (which also loaded significantly on Factor II).

Predicting Transfer from Frequency of Support Ratings

Hypothesis 2 contended the relationship between perceived supervisory support, and self-reported transfer of training will differ among the managerial-skill dimensions. After examining the four factor analyses of the managerial-skill dimensions and inspecting the means of importance ratings

for the seven support variables, no discernible differences between the training topics could be detected. This finding suggests that the quality of supervisory support received was not dependent upon the subject matter being learned, nor was any single type of support more important to a trainee than another.

Rather than examine ratings of importance, attention was turned to ratings of the frequency of supervisory support. In an attempt to predict transfer of training from supervisory support, these frequency ratings were averaged across the seven types of support for each of the four training topics examined. These frequency means created a single measure of general support for each training topic which was then used to predict transfer in four simple regression analyses. These analyses did not support Hypothesis 2. Of the four analyses performed, only the one for Planning & Organizing reached significance. The mean and standard deviation of the transfer rating and general support variable for Planning & Organizing are revealed in Table 19. The correlation matrix for the general support variable is given in Table 20. Table 21 reveals the simple regression analysis performed on items in Planning and Organizing.

Discussion

The aim of this investigation was to identify what, specifically, is perceived by trainees to constitute supervisory support in the process of transferring behavioral management skills from the training seminar to the work environment. Although logically a critical component of the transfer process, supervisory support of training has largely been ignored by previous researchers. As stated earlier, it was useful to begin the investigation into the

Table 19

Mean and Standard Deviation of Frequency Ratings
for Items in Planning and Organizing

Item	Mean	SD
Transfer	4.14	.87
General support	3.37	.96

Table 20

Intercorrelation Matrix of Frequency Ratings
for Items in Planning and Organizing

	Transfer	General support
1. Transfer	1.00	
2. General support	.30	1.00

Table 21

Simple Regression Analysis of Frequency Ratings
for Items in Planning and Organizing

Multiple R	.30
R Squared	.09
Adjusted R Squared	.07

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	3.18	3.18
Residual	47	32.82	0.70

$F = 4.56$

$p = .03$

definition of support by systematically examining the perceptions of those who need and receive it. It was hypothesized that the underlying structure of support is multidimensional in nature. Examination of the 13 variables supports this hypothesis.

Inspection of the first six general support variables in a maximum-likelihood factor analysis reveals that they account for a large proportion of variance, suggesting that some of the factors underlying the concepts of supervisory support of training have been identified (see Table 3). Four of the six general support items load significantly in this two-factor solution.

While the next seven items (see Table 4) load somewhat differently for each of the four specific training topics examined, in every case they yield a one-factor solution and all appear to be important in defining supervisory support of training. These similar one-factor solutions tend to suggest that the importance of supervisory support is not so much dependent upon the subject matter being learned as it is characterized by intervention in both an interpersonal and symbolic sense (see Tables 6, 9, 12, 15).

Subjects' importance ratings were averaged over all 16 training topics and combined with the six general ratings to yield four underlying factors of supervisory support which are perceived to aid in the transfer process (see Table 18). While this procedure made an interesting contribution to the investigation and may well represent the best model of supervisory support, the results must be cautiously interpreted with the understanding that subjects' means across many training topics served as data points and that seven of the items were asked relative to specific training topics while six were not.

With this caveat in mind, the first factor was named Interpersonal Intervention. It accounts for the greatest proportion of variance and appears to be fairly well defined by the six items loading heavily upon it. Generally, these variables are characterized by behavioral tasks performed by the supervisor during and subsequent to training. The factor includes the following support behaviors: Reinforce, Coach, Model, Encourage to Do Well, Encourage to Apply, Show Confidence in Ability to Use, and Ensure Resources Are Present.

The second factor was named Symbolic Intervention. Items loading on this factor seem to suggest that moral support also plays a role in the transfer process. This type of support differs from the first in that the four items loading upon it appear more indirect or symbolic in support of training. This factor includes the supportive behaviors of: Learn Same Skills Taught to Trainees, Spend Time to Find Out What is Being Learned, and Attend Training Kickoff Sessions and Graduation. Ensuring Necessary Resources are Present also marginally loads on this factor.

While the first two factors are characterized by intervention, the third factor, named Managerial Influence, comprises variables indicating that the supervisor has taken an active role in the implementation of training within the department. The supervisory behaviors included in this factor are: Participate in Choosing Employees for Training Seminars and Define Training Objectives.

The fourth factor was named Work Flow Management. The leading item for this factor is Clearing the Way. Define Training Objectives loads on this

factor as well, and seems related to enabling training to occur in the course of an employee's work life.

Thus, it appears that trainees view supervisory support as multidimensional and define the nature of support independently of training topics. Indeed, when trainees describe a supervisor as being supportive, they are referring to both direct and indirect intervention. That is, the supervisor is requested to be an organizer, a teacher, and a cheerleader.

The four simple regression analyses attempted to predict transfer of training based upon the frequency of interpersonal supervisory support. This effort was not very successful. The high degree of intercorrelation of frequency ratings among the seven types of interpersonal support indicate they are essentially measuring the same construct, a conclusion the factor analyses of importance ratings support. This high degree of apparent redundancy among the variables may also indicate that subjects were unable to differentiate among the seven types of supervisory support. Subjects may have been somewhat inaccurate at estimating transfer rates, possibly due to a lapse of time since the training. Only one of the four analyses (Planning & Organizing) was significant, accounting for a small 8% of the variance (see Table 21). It is possible that Planning & Organizing was significant because it was the only one of the four training topics examined that consisted of concretely defined behavioral tasks. A pilot study suggests that the less ambiguous a training topic, the more probable it is that supervisory support will effect transfer. It is likely that concrete training topics promote a clear understanding of target behaviors and assist in determining whether or not training objectives have been met.

The factor analyses tapped the structure of perceptions of different types of supervisory support. The regression analyses attempted to predict remembered transfer based on perceived frequency of interpersonal support. It is possible that the results may, in part, arise from variations in the perception of support rather than from its actual existence. To investigate this possibility would require obtaining objective measures of support, for example, from employee's supervisors, peers, and subordinates. Additionally, to accurately assess transfer, measures prior and subsequent to training should be collected. Nevertheless, the results presented here provide a foundation for a more differentiated understanding of supervisory support of training. By clearly specifying the types of supervisory support perceived to be important to trainees attempting to transfer new skills to the job, corporations may be able to obtain their goal of increased returns on training investment dollars.

Future research should utilize a greater number of subjects, permit a shorter period of time to elapse between training and assessment, examine an exhaustive array of supportive behaviors, and be capable of making generalizations about supportive behaviors considered together to confirm the factors and predictions tentatively identified here.

References

- Baldwin, T. T. & Ford, J. K. (1988). Transfer of training: A review and directions for future research. Personnel Psychology, 41, 63-105.
- Davis, B. L., Hellervik, L. W. & Sheard, J. L. (Eds.). (1986). Successful manager's handbook. Minneapolis, MN: Personnel Dimensions, Inc.
- Decker, P. J. & Nathan, B. R. (1985). Transfer of training. Behavior modeling training (pp 79-93). New York: Praeger Publishers.
- Fleishman, E. (1953). Leadership climate, human relations training and supervisory behavior. Personnel Psychology, 6, 205-222.
- Georgenson, D. L. (1982). The problem of transfer calls for partnership. Training and Development Journal, 36, 75- 78.
- House, R. J. (1968). Leadership training: Some dysfunctional consequences. Administrative Science Quarterly, 12, 556-576.
- Huczynski, A. A. & Lewis, J. W. (1980). An empirical study into the learning transfer process in management training. Journal of Management Studies, 17, 227-240.
- Martin, G. & Pear, J. (1983). Behavior modification: What it is and how to do it (2nd ed.), New Jersey: Prentice-Hall, Inc.
- Noe, R. (1986). Trainees' attributes and attitudes: Neglected influences on training effectiveness. Academy of Management Review, 11, 736-749.
- Thornton, G. C., III & Byham, W. C. (1982). Assessment centers and managerial performance, New York: Academic Press, Inc.

Appendix

Appendix

Management Training Questionnaire

Thank you for taking the time to participate in this study. We are asking for feedback about your experiences with management training. We are looking for information about the skills, knowledge or attitudes you may have learned in a training seminar in the last two years. Specifically, we want to focus on those skills which you learned in a training seminar and were later able to use in your actual work environment. The role that your supervisor may have played in this process is of primary interest.

You will be asked to identify those skills, knowledge or attitudes you learned in management training programs within the last two years. You will also be asked to identify the frequency of certain actions by your supervisor and how important these actions were to you in terms of using what you learned on the job.

Please respond to the questions by circling the number which most closely describes your experiences with management training. Your answers will remain strictly confidential. Please do not leave any of the items unanswered. If you have any questions about what is expected of you, please ask.

**AGREEMENT TO PARTICIPATE IN RESEARCH AT
SAN JOSE STATE UNIVERSITY**

Responsible Investigator: Philip M. Orr

I have been invited to participate in research on training and development. The investigator hopes to learn more about increasing the success of management training programs. My participation in this study is voluntary.

If I decide to participate, I will be asked a series of questions about my experiences with management training. The entire procedure will take approximately 45 minutes. Any information that is obtained from me in connection with this study and that can be identified with me will remain strictly confidential. I understand that my name will never appear in the report.

My decision to participate or not to participate will in no way prejudice my future relations with San Jose State University or with the company which employs me. If I decide to participate, I am free to withdraw my consent and to discontinue my participation at any time without penalty.

If I have any questions I will ask them prior to beginning the questionnaire. An opportunity to answer questions will be provided once the session has concluded. I may contact Philip M. Orr at 408/984 3257 with any questions. If I have any concerns about the procedures I may contact Dr. Frank Payne, Psychology Department Chairman at 408/924 5600. For questions about research participants' rights or in the event of research related injury, I may contact Dr. Serena Stanford, Associate Academic Vice President of Graduate Studies at 408/924 2480.

I am making a decision whether or not to participate. My signature indicates that I have decided to participate having read the information provided above.

Date _____

Signature _____

(Participant)

Signature _____

Printed name _____

(Investigator)

(Participant)

Please give us some background information about yourself.

1. My company's name is _____
2. I am: Male _____ Female _____
3. My supervisor is: Male _____ Female _____
4. Out of _____ levels of management in my department, I am in the _____ level.
5. I have been in my current position for:

1	2	3	4	5
0-2 yrs	3-6 yrs	7-10 yrs	11-14 yrs	15+ yrs
6. I have been in a management position for:

1	2	3	4	5
0-2 yrs	3-6 yrs	7-10 yrs	11-14 yrs	15+ yrs
7. I have worked with my current supervisor for:

1	2	3	4	5
0-2 yrs	3-6 yrs	7-10 yrs	11-14 yrs	15+ yrs
8. The highest degree I have completed is:

1	2	3	4	5
High school	AA/AS	BA/BS	MA/MS	Ph.D./Ed.D.
9. The last time I participated in a management training program was:

1	2	3	4
0-6 mo	7-12 mo	13-18 mo	19-24 mo
10. Within the last two years, the number of management training programs I have participated in is:

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----
11. In general, I have found these training programs to be:

1	2	3	4	5
not at all useful	not very useful	somewhat useful	fairly useful	very useful

		1 never not at all	2	3 sometimes somewhat	4	5 always very	6 N/A
		How often did your supervisor ...					How important was it that your supervisor ...
12.	help define training objectives?	1	2	3	4	5	6
13.	clear the way for you to attend the training sessions?	1	2	3	4	5	6
14.	spend time with you to find out what you are learning and to answer questions?	1	2	3	4	5	6
15.	participate in choosing the employees for a training session?	1	2	3	4	5	6
16.	attend training kickoff sessions and graduation?	1	2	3	4	5	6
17.	participate in training sessions to learn the same skills taught to you?	1	2	3	4	5	6

PLANNING & ORGANIZING

Setting goals, developing strategies and schedules for meeting those goals; anticipating obstacles and alternative strategies; assigning responsibilities, allocating resources and coordinating the activities of others to meet objectives efficiently and effectively.

1. Have you received training in this area within the last two years?
Yes ___ No ___ If yes, please answer the questions on this page. If no, please move on to next page.

Circle the number which best describes your experiences when being trained in this area.
Use the descriptions below when making your decision:

- | | 1
never
not at all | 2 | 3
sometimes
somewhat | 4 | 5
always
very | 6
N/A |
|---|---------------------------------|----------|-----------------------------------|-----------|----------------------------|-----------------|
| 2. When faced with the need, how often do you use this in your work environment? | | | | 1 2 3 4 5 | | |
| 3. How important is it that you use this in your work environment? | | | | | | 1 2 3 4 5 |
| 4. When you were learning to use this skill, how often was your supervisor's ability level equal to or greater than yours in this area? | | | | 1 2 3 4 5 | | |
| 5. At that time, how important was it that your supervisor's ability level was equal to or greater than yours in this area? | | | | | | 1 2 3 4 5 |

In terms of using this skill on the job,

- | | How often
did your
supervisor ... | How important
was it that your
supervisor ... |
|--|---|---|
| 6. encourage you to do well in this seminar? | 1 2 3 4 5 | 1 2 3 4 5 |
| 7. show confidence in your ability to master using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 8. ensure you have the necessary resources to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 9. model this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 10. encourage you to apply this new skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 11. coach you when you're making an effort to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 12. reinforce your using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |

TIME MANAGEMENT

Allocating one's own time efficiently, arranging information systematically and processing paperwork effectively.

1. Have you received training in this area within the last two years?
 Yes ___ No ___ If yes, please answer the questions on this page. If no,
 please move on to next page.

Circle the number which best describes your experiences when being trained in this area.
 Use the descriptions below when making your decision:

- | | 1
never
not at all | 2 | 3
sometimes
somewhat | 4 | 5
always
very | 6
N/A |
|---|--------------------------|---|----------------------------|-----------|---------------------|-----------|
| 2. When faced with the need, how often do you use this in your work environment? | | | | 1 2 3 4 5 | | |
| 3. How important is it that you use this in your work environment? | | | | | | 1 2 3 4 5 |
| 4. When you were learning to use this skill, how often was your supervisor's ability level equal to or greater than yours in this area? | | | | 1 2 3 4 5 | | |
| 5. At that time, how important was it that your supervisor's ability level was equal to or greater than yours in this area? | | | | | | 1 2 3 4 5 |

In terms of using this skill on the job,

- | | How often
did your
supervisor ... | How important
was it that your
supervisor ... |
|--|---|---|
| 6. encourage you to do well in this seminar? | 1 2 3 4 5 | 1 2 3 4 5 |
| 7. show confidence in your ability to master using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 8. ensure you have the necessary resources to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 9. model this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 10. encourage you to apply this new skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 11. coach you when you're making an effort to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 12. reinforce your using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |

LEADERSHIP STYLE AND INFLUENCE

Taking charge and initiating actions; directing the activities of individuals and groups toward the accomplishment of meaningful goals; adapting leadership strategy to different situations.

1. Have you received training in this area within the last two years?
 Yes ___ No ___ If yes, please answer the questions on this page. If no,
 please move on to next page.

Circle the number which best describes your experiences when being trained in this area.
 Use the descriptions below when making your decision:

- | | 1
never
not at all | 2 | 3
sometimes
somewhat | 4 | 5
always
very | 6
N/A |
|---|---|----------|---|----------|--|------------------------|
| 2. When faced with the need, how often do you use this in your work environment? | | | | | 1 2 3 4 5 | |
| 3. How important is it that you use this in your work environment? | | | | | | 1 2 3 4 5 |
| 4. When you were learning to use this skill, how often was your supervisor's ability level equal to or greater than yours in this area? | | | | | 1 2 3 4 5 | |
| 5. At that time, how important was it that your supervisor's ability level was equal to or greater than yours in this area? | | | | | | 1 2 3 4 5 |

In terms of using this skill on the job,

- | | How often
did your
supervisor ... | How important
was it that your
supervisor ... |
|--|---|---|
| 6. encourage you to do well in this seminar? | 1 2 3 4 5 | 1 2 3 4 5 |
| 7. show confidence in your ability to master using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 8. ensure you have the necessary resources to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 9. model this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 10. encourage you to apply this new skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 11. coach you when you're making an effort to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 12. reinforce your using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |

MOTIVATING OTHERS

Creating an environment in which subordinates are rewarded for accomplishment of group and individual goals.

1. Have you received training in this area within the last two years?
Yes ___ No ___ If yes, please answer the questions on this page. If no,
please move on to next page.

Circle the number which best describes your experiences when being trained in this area.
Use the descriptions below when making your decision:

- | | 1
never
not at all | 2 | 3
sometimes
somewhat | 4 | 5
always
very | 6
N/A |
|---|---|----------|---|----------|--|------------------------|
| 2. When faced with the need, how often do you use this in your work environment? | | | | | 1 2 3 4 5 | |
| 3. How important is it that you use this in your work environment? | | | | | | 1 2 3 4 5 |
| 4. When you were learning to use this skill, how often was your supervisor's ability level equal to or greater than yours in this area? | | | | | 1 2 3 4 5 | |
| 5. At that time, how important was it that your supervisor's ability level was equal to or greater than yours in this area? | | | | | | 1 2 3 4 5 |

In terms of using this skill on the job,

- | | How often
did your
supervisor ... | How important
was it that your
supervisor ... |
|--|--|--|
| 6. encourage you to do well in this seminar? | 1 2 3 4 5 | 1 2 3 4 5 |
| 7. show confidence in your ability to master using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 8. ensure you have the necessary resources to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 9. model this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 10. encourage you to apply this new skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 11. coach you when you're making an effort to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 12. reinforce your using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |

GROUP SKILLS

Planning, conducting and participating in meetings in which the collective resources of the group members are used efficiently.

1. Have you received training in this area within the last two years?
 Yes ____ No ____ If yes, please answer the questions on this page. If no,
 please move on to next page.

Circle the number which best describes your experiences when being trained in this area.
 Use the descriptions below when making your decision:

- | | 1
never
not at all | 2 | 3
sometimes
somewhat | 4 | 5
always
very | 6
N/A |
|---|---|----------|---|-----------|--|------------------------|
| 2. When faced with the need, how often do you use this in your work environment? | | | | 1 2 3 4 5 | | |
| 3. How important is it that you use this in your work environment? | | | | | | 1 2 3 4 5 |
| 4. When you were learning to use this skill, how often was your supervisor's ability level equal to or greater than yours in this area? | | | | 1 2 3 4 5 | | |
| 5. At that time, how important was it that your supervisor's ability level was equal to or greater than yours in this area? | | | | | | 1 2 3 4 5 |

In terms of using this skill on the job,

- | | | How often
did your
supervisor ... | How important
was it that your
supervisor ... |
|--|-----------|--|--|
| 6. encourage you to do well in this seminar? | 1 2 3 4 5 | 1 2 3 4 5 | |
| 7. show confidence in your ability to master using this skill? | 1 2 3 4 5 | 1 2 3 4 5 | |
| 8. ensure you have the necessary resources to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 | |
| 9. model this skill? | 1 2 3 4 5 | 1 2 3 4 5 | |
| 10. encourage you to apply this new skill? | 1 2 3 4 5 | 1 2 3 4 5 | |
| 11. coach you when you're making an effort to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 | |
| 12. reinforce your using this skill? | 1 2 3 4 5 | 1 2 3 4 5 | |

DELEGATING & CONTROLLING

Clearly assigning responsibilities and tasks to others; establishing effective controls; ensuring that employees have the necessary resources and authority; monitoring progress and exercising control.

1. Have you received training in this area within the last two years?
Yes ____ No ____ If yes, please answer the questions on this page. If no, please move on to next page.

Circle the number which best describes your experiences when being trained in this area.
Use the descriptions below when making your decision:

- | | 1
never
not at all | 2 | 3
sometimes
somewhat | 4 | 5
always
very | 6
N/A |
|---|---|----------|---|-----------|--|------------------------|
| 2. When faced with the need, how often do you use this in your work environment? | | | | 1 2 3 4 5 | | |
| 3. How important is it that you use this in your work environment? | | | | | | 1 2 3 4 5 |
| 4. When you were learning to use this skill, how often was your supervisor's ability level equal to or greater than yours in this area? | | | | 1 2 3 4 5 | | |
| 5. At that time, how important was it that your supervisor's ability level was equal to or greater than yours in this area? | | | | | | 1 2 3 4 5 |

In terms of using this skill on the job,

- | | How often
did your
supervisor ... | How important
was it that your
supervisor ... |
|--|---|---|
| 6. encourage you to do well in this seminar? | 1 2 3 4 5 | 1 2 3 4 5 |
| 7. show confidence in your ability to master using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 8. ensure you have the necessary resources to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 9. model this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 10. encourage you to apply this new skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 11. coach you when you're making an effort to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 12. reinforce your using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |

STAFFING COACHING & DEVELOPING PEOPLE

Hiring and evaluating employees, providing performance feedback and facilitating professional growth.

1. Have you received training in this area within the last two years?
Yes ____ No ____ If yes, please answer the questions on this page. If no, please move on to next page.

Circle the number which best describes your experiences when being trained in this area.
Use the descriptions below when making your decision:

- | | 1
never
not at all | 2 | 3
sometimes
somewhat | 4 | 5
always
very | 6
N/A |
|---|---|----------|---|-----------|--|------------------------|
| 2. When faced with the need, how often do you use this in your work environment? | | | | 1 2 3 4 5 | | |
| 3. How important is it that you use this in your work environment? | | | | | | 1 2 3 4 5 |
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In terms of using this skill on the job,

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| 6. encourage you to do well in this seminar? | 1 2 3 4 5 | 1 2 3 4 5 |
| 7. show confidence in your ability to master using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
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| 9. model this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 10. encourage you to apply this new skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 11. coach you when you're making an effort to use this skill? | 1 2 3 4 5 | 1 2 3 4 5 |
| 12. reinforce your using this skill? | 1 2 3 4 5 | 1 2 3 4 5 |

HUMAN RELATIONS SKILLS

Showing a awareness of, and consideration for, the opinions and feelings of others; developing and maintaining smooth, cooperative working relationships with peers, subordinates and superiors.

1. Have you received training in this area within the last two years?
Yes ____ No ____ If yes, please answer the questions on this page. If no,
please move on to next page.

Circle the number which best describes your experiences when being trained in this area.
Use the descriptions below when making your decision:

- | | 1
never
not at all | 2 | 3
sometimes
somewhat | 4 | 5
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N/A |
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| 12. reinforce your using this skill? | 1 2 3 4 5 | 1 2 3 4 5 | |

CONFLICT MANAGEMENT & NEGOTIATING

Bringing conflict or dissent into the open and using it productively to enhance the quality of decisions; arriving at constructive solutions while maintaining positive working relationships.

1. Have you received training in this area within the last two years?
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INFORMING

In a timely fashion, letting people know of decisions, changes and other relevant information.

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ORAL COMMUNICATION

Speaking effectively one-to-one and in groups; making effective presentations.

1. Have you received training in this area within the last two years?
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WRITTEN COMMUNICATIONS

Writing clearly and effectively; using appropriate style, format, grammar and tone, in informal and formal business communications.

1. Have you received training in this area within the last two years?
 Yes ___ No ___ If yes, please answer the questions on this page. If no,
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STRESS MANAGEMENT/PERSONAL ADAPTABILITY

Responding appropriately and confidently to the demands of work challenges when confronted with changes, ambiguity, adversity or other pressures.

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PERSONAL MOTIVATION

Establishing high performance standards, working hard to attain those standards, taking initiative and demonstrating commitment to the organization and the professional management.

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PROBLEM ANALYSIS & DECISION MAKING

Identifying problems and recognizing symptoms, causes and alternative solutions; making timely, sound decisions, even under conditions of risk and uncertainty.

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INNOVATION & RESOURCEFULNESS

Developing original, unusual, successful approaches; encouraging the creativity of subordinates; readily drawing on a large pool of diverse sources of information.

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| 12. reinforce your using this skill? | 1 2 3 4 5 | 1 2 3 4 5 | |

1. Please describe a time when you returned from a training seminar with a new skill and found yourself using it in your work situation.

What kinds of things did your supervisor do to help you use this new skill?

What other kinds of things helped you to use what you learned in the training?

2. Please describe a time when you returned from a training seminar with a new skill and found you were unable to use it in your work situation.

What did your supervisor do that hindered you from using this new skill?

What other kinds of things hindered you from using what you learned in the seminar?

3. Please make any other comments you would like.