

The Relationship Between Distance Coaching and The Transfer of Training

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This paper examined the relationship between distance coaching, a post-training strategy, and the transfer of training. More specifically, the paper studied the relationship between (1) distance coaching activities and transfer of training, (2) trainees' perceptions on coaching and transfer of training, and (3) distance coaching activities and trainees' perceptions on coaching.

Keywords: transfer of training, distance coaching

Global competition, technological advancement, and transformation of the traditional workplace are raising the pressures to improve performance in all types of organizational settings (Broad, 1997). Training is one of the most frequently employed human resource development (HRD) strategies to improve employee and organizational performance. However, a series of studies indicated that less than 15 percent of what people learn in training actually transfers to the job in a way that enhances performance (Baldwin & Ford, 1988; Broad & Newstrom, 1992).

Statement of the Problem

“The transfer of learned knowledge and skills from instructional programs remains a paramount concern for training researchers and practitioners” (Burke, 1997, p. 115). Since the desired outcome of training is performance improvement, no matter how good the training program is, it is inadequate if it does not produce significant new behaviors in the workplace (Leifer & Newstrom, 1980). It is recognized that the period after training seems to be the most crucial for facilitating transfer, several authors suggest that post-training interventions need to be explored (Baldwin & Ford, 1988). However, rigorous empirical investigation in this area remains scant (Burke, 1997).

Coaching is being increasingly exploited as a post-training strategy to enhance transfer (Olivero, Bane, & Kopelman, 1997). Coaching is an ongoing, follow-up process designed to help the trainees effectively apply knowledge and skills learned in training and overcome the barriers to improve performance (Lawson, 1997; Joyce & Showers, 1982). However, practitioners' assertions on coaching, “backed by scant research; need to be empirically tested: does coaching significantly enhance the application of trained skills?” (Miller, 1989, p.2). The development of Internet-based technologies has provided a solution to the problem of limited post-training contact to support transfer of training (Johnson, Wentling, & Wadsworth, 1999), but too little is known about using Internet effectively for educational purposes (Locatis & Weisberg, 1997). There is a need to study if coaching strategies can be employed effectively with the aid of communication technologies.

Research Question

This study was guided by the following research questions:

1. What is the relationship between coaching activities and the transfer of training?
2. What is the relationship between perceived coaching success and the transfer of training?
3. What is the relationship between coaching activities and perceived coaching success?
4. What communication technologies were used?

Theoretical Framework

Transfer of Training

Since 1980's, transfer of training theories emerged to highlight the interaction among the trainee characteristics and the work environment as the primary source of influence on transfer of training (Baldwin & Ford,

1988; Broad & Newstrom, 1992). Some trainee characteristics thought to affect transfer have been suggested in the literature: motivation, self-efficacy, and self-expectancy. Motivation to transfer can be described as “the trainees’ desire to use the knowledge and skills mastered in the training program on the job” (Noe, 1986, p. 743). Self-efficacy refers to an individual’s judgment on “how well one can execute courses of action required to deal with prospective situations” (Bandura, 1982, p. 122). Expectancy theory proposes that people interact proactively with their environments based on their expectancies about the likelihood of the desired outcomes (Howard, 1989).

Work environment factors that affect transfer can be classified into three categories: organizational climate, social support, and task support. Organizational climate is generally defined as the perceived structures, values, systems, and qualities of a particular organization (Jones & James, 1979). The primary sources of social support are management/supervisors, work groups, and trainers. The existing literature does not place sufficient emphasis on trainers’ roles in transfer following the training. Broad and Newstrom (1992) recognized the transfer responsibility of trainers has not always been recognized or fully accepted. Peters and O’Connor (1980) described task support as the availability of job-related information, tools, materials, and required services and help from others.

The traditional transfer strategies are not sufficient for achieving substantial positive transfer because they focus only on the period of acquisition of skills within a training process. The recent literature has focused primarily on the period after training as the crucial time to facilitate positive transfer (Michalak, 1981). Many post-training strategies have been suggested in the literature. The main purpose of these strategies is to build a facilitating transfer climate through forming a support group or buddy system to support transfer. Specifically, these strategies attempt to help trainees clarify the expectations and goals for transfer, provide feedback, provide social, emotional, and task support, and thus increase trainees’ motivation and self-efficacy to transfer (Broad & Newstrom, 1992).

Coaching

Coaching practices are common in the field of athletics, management, and education. Rackham (1979) cited evidence that most skill training is wasted without management coaching to sustain the newly acquired skills. Michalak (1981) found that coaching activities by managers are essential to the transfer and application of skills learned in the classroom to the work situation. Joyce and Showers (1980) recommended that future research with an emphasis on the effects of coaching for application of training was needed.

The literature review revealed that there are not universal coaching activities and processes. Even though the actual appearances of coaching procedures are different, the main coaching activities can be drawn from these points: (1) building an non-threatening environment, (2) identifying and analyzing performance gap, (3) setting performance expectation and goals, (4) formulating action plan to accomplish that goal, (5) providing constructive feedback, (6) providing resources, (7) providing psychological and emotional support, (8) problem-solving, and (9) observing and monitoring the progress to achieve the goal (Lawson, 1997; Olivero et al., 1997).

In summary, the main components of coaching are quite similar to the techniques of transfer strategies. The literature also indicated that coaching activities could enhance trainees’ self-efficacy, self-awareness, and motivation to transfer (Joyce et al., 1980). Therefore, coaching appears to be a process consisting of a set of transfer techniques.

Methodology

This study was explorative and correlational in nature. In order to measure research variables and assess their relationships, this study used both quantitative and qualitative approaches to collect and analyze data. “As many of the phenomena we examine are amorphous or difficult to measure directly, these phenomena will require multiple measures to adequately assess the issue” (Worthern, et al., 1997, p.342). The demands of rigor in this study were addressed through employing multiple measures to present multiple perspectives from multiple information sources.

Population and Sample

The sample for this study was drawn from trainees of an international training program on “training of trainers.” The training program was sponsored by the World Bank, Asian Institute of Technology, and Department of Human Resource Education at the University of Illinois at Urbana-Champaign. A total of 28 participants representing 18 different countries from 5 continents attended this training program. All program participants met in Bangkok in June of 1998 to attend a three-week training course. Six collaborative peer learning groups (PLG) were established with each group consisting of 5-6 participants and an assigned coach. PLGs were created based on

participants' fields of subject-matter and areas of interest. Each participant was required to develop a detailed action plan for the next distance coaching phase.

Distance coaching was conducted during July-December of 1998 after the training session. The Internet-based distance learning methods and facilities were established to facilitate and support participants to practice their newly acquired knowledge and skills and collaborate with his or her "virtual" learning group and online coach. Internet-based technologies used included e-mails, asynchronous WebBoard postings, and synchronous text chats.

The sample of this study was the 28 participants who completed the ITQ program. All 28 participants are senior or master trainers in their respective institutions and have training-related experiences. About 93% of them have at least bachelor degrees. Twenty-three of the 28 participants were from Asia, and the rest are from Europe, South America, and Africa. All the six coaches possess doctorate degrees, hold faculty positions in universities. Three of the coaches were from the United States, one from Thailand, one from Malaysia, and one from Australia.

Instrumentation

Four instruments were developed to collect data for this study: (1) Transfer Assessment Report (TAR), (2) Questionnaire on Transfer of Training, (3) Codes of Coaching Activities, and (4) Online Questionnaire on Perceived Coaching Success. These instruments were used to measure the three research variables: transfer of training, coaching activities, and perceived coaching success. The researcher decided to use Ford's et al.'s (1992) and Quinones et al.'s (1995) approaches to measure transfer of training in three dimensions because their model corresponded to what this researcher wanted to know about the transfer in this study. These three dimensions are: (a) breadth of transfer: the number of distinctive trained tasks are performed; (b) Frequency of Transfer: the number of times trained tasks are performed; and (c) difficulty of Transfer: complexity or difficulty level of performed tasks.

Each participant was given a guideline for writing the TARs. The purpose of the TAR was to guide the participants to reflect and document the tangible transfer outputs and evidences.

The questionnaire on transfer of training, complementing the TAR, measured three dimensions of transfer. First, the researcher developed a transfer list for each participant based on his or her TAR. This list specified what knowledge and skill element was transferred. Second, each participant was asked to rate how frequently he or she applied each knowledge/skill element on the transfer list on a scale from 1 to 5, with 1 being "never" and 5 being "always." Third, the participant was asked to rate the perceived difficulty level for each applied knowledge/skill element on the transfer list on a scale from 1 to 5: with 1 being "very easy" and 5 being "very difficult."

In order to analyze and count coaching activities from communication logs, ten predetermined codes on coaching activities were generated from review of literature by the researcher. The ten codes were: (1) defining performance expectations, (2) defining coaching topics, (3) scheduling coaching sessions, (4) building relationships with participants, (5) providing resources to participants, (6) providing feedback to participants, (7) facilitating problem-solving, (8) developing the action plan, (9) addressing participant concerns, and (10) monitoring progress.

The purpose of the online questionnaire on perceived coaching success was to obtain participants' perceptions of the distance coaching process. Through an extensive literature review, the researcher identified 10 major factors contributing to successful coaching: (1) preparation for coaching, (2) goal-setting, (3) interaction with coach (4) relationships with coach, (5) feedback from coach, (6) resources from coach, (7) concerns from coach, (8) encouragement from coach, (9) disciplining coaching process, and (10) monitoring progress. A 39-item questionnaire was developed to address these factors on a five-point Likert scale (from "strongly disagree" to "strongly agree").

Data Collection and Analysis

Due to incompleteness of data, one PLG with three participants was dropped for further study. Three types of communication logs reflecting the interaction between the coach and participants were chosen for content analysis in this study: group asynchronous WebBoard postings, e-mails between coaches and participants, and group synchronous text chats. These communication logs occurred during distance coaching phase from June-December of 1998 were captured electronically and printed. The transfer assessment reports of participants were obtained from the principal coach in April of 1999 after getting permission from the participants. The questionnaires on transfer of training were sent through e-mail attachments and the questionnaire on perceived coaching success was put in a Website. After multiple follow-ups, 20 out of 25 participants responded, giving a response rate of 80%.

The sum of distinctive knowledge/skill elements on the transfer list created from the TAR was the measurement of breadth of transfer. The mean of ratings on frequency was the measurement of frequency of transfer. The mean of ratings on difficulty was the measurement of difficulty of transfer. To be able to combine the

results on all three dimensions and measure the overall transfer, the result on each dimension was calculated z-score, and the sum of the three z-scores was the result of the overall transfer.

The communication logs occurred during distance coaching phase were subject to content analyses for coaching activities with the ten pre-determined codes. An adapted form of the Contact Summary Form suggested by Miles and Huberman (1994) was used in coding qualitative data. Sentences or paragraphs in communication messages were the primary units of coding. After coding, each code was assigned to each participant who was involved in this communication. Finally, the frequency of each code for each participant was summed.

Factor analysis and reliability analysis was conducted for instrument on perceived coaching success. Then the mean for each success factor was calculated. The average rating of the ten factors is the measurement of the overall coaching success. Bivariate correlations and stepwise multiple regressions were the primary methods used to assess the relationships among the three research variables: transfer of training, coaching activities, and perceived coaching success.

Results and Conclusions

Relationship Between Coaching Activities and Transfer of Training

The results of this study indicated that the following five of 10 coaching activities had significant relationships with the transfer of training:

(1) Providing resources. This study finds that the coaching activity *providing resources* had a significant positive relationship with breadth of transfer ($r=0.50$, $p<0.05$) and explained about 25% of variance in breadth of transfer. Throughout this study, *providing resources* included coaches' activities to give participants information, suggestions, materials, and express willingness to offer help and consultation. This finding is consistent with task support required for transfer in the transfer literature. Employees who do not have the resources (i.e., time, materials, information) to complete work assignments successfully become frustrated and are not productive during the work day (Peters & O'Connor, 1980), nor developing or practicing ways to apply new knowledge or skills (Kehrhahn, 1995). Often expressions of support have been found to be helpful as well (Stowell, 1987).

(2) Building relationships. It was also found in this study that coaching activity *building relationships* had a significant positive relationship with difficulty of transfer ($r=0.45$, $p<0.05$) and overall transfer ($r=0.46$, $p<0.05$) and explained 21% of the variance in the overall transfer. Activities of *building relationships* in this study included: exchanging good wishes, expressing interests and concerns about each other's family members, holidays, trips, job changes, and making jokes. Lawler (1973) suggested that affiliation or social interaction and identification with a social group is one of the extrinsic factors that inspire people in work organizations to perform. *Building relationships* may have enhanced participants' motivation to transfer through strengthening participants' association and interaction with their coaches.

(3) Problem-solving. This study reveals that coaching activity *problem-solving* had positive relationship with breadth of transfer ($r=0.50$, $p<0.05$) and negative relationship with difficulty of transfer ($r=-0.58$, $p<0.05$). In this study, communication technologies were the vehicles that allowed the delivery of coaching activities. Therefore, helping the participants to solve technical problems to encourage technology use and sustain enthusiasm to transfer became important. On the other hand, the coach and the participant spent time problem-solving might be indicative of more time participants encountered technical problems. Frequent encountering of technical hardship may block the transmission of coaching activities to facilitate transfer of training and lead to decreased participant motivation to try more challenging tasks.

(4) Defining expectations. Stepwise multiple regression revealed that the more the coaches expressed their *expectations* to expect participants to make progress toward work plans and preparation for the next evaluation phase, the less difficult tasks the participants tried. These activities which periodically communicated expectations were actually a kind of reminding and monitoring activity that held participants accountable for their progress. Research conducted over the past few years indicates that accountability can result in performance improvements (Schlenker, 1986). However, intensified information processing associated with accountability does not always guarantee improved performance. In fact, intensive information processing that induces high stress and anxiety lead to reduction in performance (Schlenker & Leary, 1985). In transfer literature, outcome expectations of individuals are known to have an effect on their behaviors. For instance, people with low outcome expectations tend to procrastinate potentially difficult tasks, work less hard on them, easily abandon the tasks when encountering obstacles, and attribute low abilities instead of efforts to keeping them from succeeding (Bandura, 1977). Schlenker and Leary (1985) proposed that outcome expectations will be lowered when: (a) audiences are perceived to be more

demanding, less supportive, and more evaluative, (b) situations are more demanding, difficult, evaluative, or ambiguous, and (c) an actor's self-perceived skills and resources to the task are lower.

In this study, the more the coaches expressed their expectations, the more the participants may have perceived their coaches to be demanding or evaluative. If this perception is accompanied by insufficient support from the coaches, constraints from participants' work environment, tough tasks, or low individual abilities, coaches' expectations may discourage participants to try more difficult tasks.

(5) Scheduling coaching. Stepwise multiple regression revealed that, as a predictor, coaching activity *scheduling coaching* was negatively associated with breadth of transfer and with difficulty of transfer. *Scheduling coaching* in this study were coaches and participants' activities regarding the scheduling of synchronous chats. This may imply that some coaches had difficulties to organize the chats with their groups due to low group cohesion. This may also mean some coaches were more democratic in scheduling coaching and took extra effort to have everyone's input in scheduling. Therefore, effective ways to schedule coaching with groups of people from different countries with different states of technology and time zones needed to be given more consideration.

Relationship Between Perceived Coaching Success and Transfer of Training

This study measured participants' perceptions on ten factors that are critical for the success of coaching, the results indicated that five of the ten factors had significant relationships with the transfer of training.

(1) Preparation for coaching. This study concludes that the participants' perceptions of how well the coach *prepared for coaching* had a significant positive relationship with breadth of transfer ($r=0.51$, $p<0.05$) and with overall transfer ($r=0.68$, $p<0.05$), and explained about 26% variance in breadth of transfer and about 46% of variance in overall transfer. Perceived *preparation for coaching* in this study measured the extent to which the participants perceived that the coach prepared well for the coaching, carefully reviewed the documents that have been submitted, and knew the issues for coaching. This finding confirms Stowell's (1987) study on effective coaching: one of the most striking findings from their interviews with coaches and employees was the amount of emphasis given to planning and preparation prior to the coaching discussion. Employees appeared to easily pick up the level of preparation of their coaches. Therefore, this finding suggests that a well-prepared, well-structured, and purposeful coaching have importance for transfer of training.

(2) Interaction with coach. This study also reveals that perceived *interaction with coach* was positively related to frequency of transfer ($r=0.72$, $p<0.01$) and overall transfer ($r=0.50$, $p<0.05$). Perceived *interaction with coach* explained about 52% of the variance in frequency of transfer. Perceived *interaction with coach* in this study measured to what extent both coaches and participants brought their experiences, expertise, ideas, and needs to the coaching process. This finding is consistent with Huczynski and Lewis's (1980) description of a supportive supervisor required in a favorable environment for transfer. This supervisor should be one who is open to suggestions, listens to new ideas, and allows use of new methods. This finding suggests that if participants are given more opportunities to have their contributions and inputs to the coaching process, they may have higher transfer performance.

(3) Relationships with coach. A significant positive relationship between perceived *relationships with coach* and frequency of transfer was also found in this study ($r=0.66$, $p<0.01$). Perceived *relationships with coach* in this study measured to what extent the coach and the participant had mutual respect, trust, and feeling of freedom to express themselves. This finding confirms the literature which shows that trainees attempting transfer need emotional support that make them feel secure, respected, loved, and admired (Jacobson, 1986). Tracy, Tannenbaum, and Kavanaugh (1995) pointed out social interactions and work relationships is one component of continuous learning environment in which transfer of training will be enhanced.

(4) Encouragement from coach. This study indicates that there was a significant, positive relationship between the perceived *encouragement from coach* and overall transfer ($r=0.55$, $p<0.05$). Perceived *encouragement from coach* measured to what extent the participant felt that the coach was optimistic about the participant's abilities to succeed and recognized participant's achievement and success. The positive correlation is consistent with the literature highlighting that trainees' perceptions of supervisory and co-worker encouragement is a component of social support constituting environment favorability (Kehrhahn, 1995). Noe (1986) suggested that intention to transfer will be positively affected if interventions enhance confidence in learners' abilities to use the new skills.

(5) Monitoring progress. Stepwise multiple regression reveals that as a predictor factor, perceived *monitoring progress* was negatively associated with the frequency of transfer. In this study, *monitoring progress* measured to what extent the coach maintained contact with the participants regarding the progress made toward planned activities. *Monitoring progress* was also a kind of activity to hold participants accountable for their work

plans and the next phase for evaluations. This may lead to lower outcome expectations due to associated stress and anxiety, and thus decreased performance level.

Relationship Between Coaching Activities and Perceived Coaching Success

Coaching activities *defining expectations* and *defining coaching topics* had significant, negative relationships with a series of perceptions of participants about the coach and the coaching including: (a) *preparation for coaching*, (b) *concerns from coach*, (c) *encouragement from coach*, and (d) the overall coaching success. Review of communication logs indicated that *defining coaching topics* were primarily coaches' activities to set the agenda for synchronous chats. Generally, there were two themes within the agenda: reporting the progress of the work plan and preparing for the evaluation meeting at Bangkok. Therefore, *defining coaching topics*, similar to *defining expectations*, was also a type of "evaluative" activity, which may be interpreted by participants to be more demanding, less considerate, and less encouraging. This finding is consistent with the effect of accountability and low outcome expectations which were discussed in the section on "Relationship Between Coaching Activities and Transfer of Training." Similarly, coaching activities *defining coaching topics*, *monitoring progress*, together with *scheduling coaching*, were each significantly, negatively related to perceived *feedback from coach*. These evaluative, demanding activities may place pressures on participants instead of providing supportive feedback for future improvements.

The coaching activity *addressing participants concerns* had significant, positive relationship with perceived *relationships with the coach*. *Addressing concerns* in this study were coaching activities such as addressing participants' concerns and difficulties in a sympathetic and understanding way. In Ennis et al's (1989) study on characteristics of an effective learning environment, they described communication in effective learning environments as communications that are "empathetic" and "concerned." These types of communications help establish the atmosphere of consideration, which is an important component of social support (Noe, 1986). This finding suggests that showing considerations to participants in words is one way for them to perceive a better relationship with the coach.

Use of Communication Technologies

This study revealed that synchronous chats carried the majority of coaching activities (about 40%), while e-mails carried about 31% and asynchronous WebBoard postings carried about 29%. *Providing resources*, *building relationships*, and *scheduling coaching* were the major types of coaching activities (23%, 21%, and 15%, respectively). Synchronous chats carried the majority of coaching activities of *building relationships* (56%) and *providing resources* (52%). This suggests that participants may prefer immediate interactions with the coach toward building relationships and seeking resources.

Conclusion

This study concluded that both actual coaching activities that occurred and participants' perceptions about the coaching had significant relationships with the transfer of training. This study added support to the existing body of knowledge that providing social support and task support to trainees can improve transfer of training. The following supportive coaching activities and skills can facilitate transfer of training: building relationships with training participants, providing resources, giving encouragement, communicating interactively, solving problems, and well preparing for coaching. These activities can help participants be more active in seeking the coach's support in various forms and enhance participants' motivation to transfer. Some evaluative or demanding coaching activities and skills should be used with caution such as monitoring progress and defining coaches' expectations. These activities intended for improving performance may induce pressures and anxieties and thus lower performance.

It was thought that coaching activity *providing feedback* to participants should have an important effect on transfer of training though this study did not confirm this assumption. The effect of feedback is influenced by situational and personal factors such as: (a) attributes of the supervisors, (b) attributes of individuals receiving the feedback, and (c) the message itself (Ashford & Cummings, 1983). In this study, since the feedback about transfer effort was given by external HRD professionals, the effect of feedback on transfer of training may be not as powerful as the feedback given by participants' immediate supervisors or managers.

Implications

Since the components of online coaching were identified from non-distance coaching literature, the researcher of this study suggests that the implications of this study can be generalized to coaching in non-distance settings. However,

this study has a small sample size, which may limit its capacity to be generalized to a large group of people. It will be beneficial to conduct a similar research with a larger sample size and with different types of organizations in order to create the results that can be generalized to other settings.

Implications for HRD Practitioners

The existing literature focuses on sources of social and task support from the trainees' work environment, especially trainees' managers, supervisors, and co-workers. The findings generated from this research evidenced that the social and task support provided by HRD professionals could also enhance transfer of training. These support activities may be important for trainees' transfer attempt especially in the absence of organizational and management support. Therefore, HRD practitioners should take a more active role in facilitating transfer of training through coaching during the post-training period. Building a post-training support system is important to be incorporated as a component of the training program.

Based on the results related to the effectiveness of each coaching activity and perception on coaching, HRD practitioners should equip themselves with supportive coaching skills and carefully examine the effects of those evaluative coaching activities in an ongoing effort to improve individual performance.

HRD practitioners should be able to communicate with business managers that they can help trainees transfer what they learned into on-the-job performance. HRD practitioners can teach and train corporate management on how to better build a supportive environment for transfer of training and effective coaching, and how to act as good coaches to help trainees transfer their training. HRD practitioners can also build a joint coaching relationship with trainees' managers and practice the most effective ways to share the coaching activities.

HRD practitioners should continue to explore the potentials of technologies for supporting transfer of training.

Implications for HRD Educators

HRD educators should revise the curriculum to incorporate transfer of training as an important component. HRD educators should prepare students with the understandings, capacities, and techniques necessary to develop and implement post-training interventions to enhance transfer. HRD educators should educate students to take a comprehensive view on transfer of training and consider three factors: work environment, trainee characteristics, and instructional design.

Implications for HRD Researchers

HRD researchers should continuously explore the post-training interventions such as coaching strategies that may be employed by HRD professionals to facilitate transfer of training.

HRD researchers should examine the influences of trainees' work environment and trainee characteristics on the effectiveness of coaching. Numerous transfer studies have confirmed that work environment and trainee characteristics factors have influences on transfer of training. It might be beneficial to examine if coaching can cope with or neutralize some of the negative environment factors, which environment factors can limit the effectiveness of coaching, and how to take trainee characteristics into account wisely when implementing coaching strategies.

HRD researchers should also compare the effectiveness of face-to-face coaching with that of distance coaching. The use of technologies in training and education settings is still a new phenomenon and the impact of technologies on communication requires further study. A comparative study between face-to-face coaching and distance coaching may lead to an insightful understanding on the advantages and disadvantages of distance coaching, so that HRD professionals can make informed decisions when implementing distance coaching.

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