EVALUATING TRANSFER OF LEARNING IN HUMAN SERVICES

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ABSTRACT: This article identifies the need for development of transfer of learning evaluation methods in the human services that utilize: (1) a conceptual framework, (2) both quantitative and qualitative strategies, and (3) both generic/general and workshop specific transfer indicators. The use of the Transfer Potential Questionnaire and the Human Services Training Effectiveness Postcard at the Northeast Ohio Regional Training Center are described as examples of transfer evaluation tools that partially address one or all of the above three criteria.

Within the last ten to 15 years, the field of training in human services has experienced substantial growth and transformation. For example, Vander Ven (1990) refers to a variety of changes affecting child and youth care worker training including: (1) a greater growth in agency sponsored training compared to academic education programs; (2) an increase in the scope of clientele for caregiving personnel; (3) an increase in distance models and alternative delivery systems to increase availability; (4) an increase in the variety of sponsors of training and (5) a growing infusion and exchange in international training and education activities.

Although training in human services has expanded, strategies and tools for evaluation of human services training has not experienced a similar augmented development (Curry & Chandler, 1999). In many cases, training evaluation is still limited to the use of reaction/satisfaction evaluation, which occurs upon the immediate conclusion of training (Bramely, 1991; Clark & Voogel, 1985; Garavaglia, 1993; Krein & Weldon, 1994; Parry & Berdie, 1999). Coinciding with the lack of evaluation sophistication is an increased concern by human services training professionals that learning obtained in the training setting often fails to transfer to the job (Curry, 1997; Curry & Caplan, 1996; Curry, Caplan, & Knuppel, 1994; Curry & Chandler, 1999).

In certain human service situations, failure to effectively apply learning on the job can increase the risk of harm (or some other undesirable outcome) to children and families. The construction of evaluation models, evaluation strategies, and instruments that assess training effectiveness and provide suggestions for program improvement are essential for training and development professionals in human service areas such as child and youth care work.

Given the field's current beginner status of transfer evaluation activities, this article will provide examples of evaluation methods used at the Northeast Ohio Regional Training Center, and will emphasize a need for further development in the following three areas:

1. A theoretical/conceptual framework for understanding and assessing transfer of learning;
2. An emphasis on both quantitative and qualitative evaluation approaches;
3. Utilization of both generic and training content-specific transfer indicators.

CONCEPTUAL FRAMEWORK

The ability to describe how a phenomenon such as transfer of learning functions can provide direction toward what and how to evaluate (methodology). The concept of transfer of learning has been around since the beginning of the 20th century (Thorndike, 1903; Thorndike & Woodworth, 1901). However, there has been a recent resurgence in interest, especially in the area of training. Previous research has emphasized instructional strategies involving the use of principles such as identical elements, general principles, stimulus variability, and response availability (Baldwin & Ford, 1988). However, recent approaches can be described as being more ecologically focused, recognizing the important role of the learner's work environment. These approaches also emphasize the importance of key persons before, during, and after the formal training session (Broad & Newstrom, 1992; Curry, et. al., 1994). One approach developed and utilized at the Northeast Ohio Regional Center (NEORTC), builds on Lewin's force field theory and advocates for assessment and intervention within a worker's "transfer field." It is described as the transfer of training and adult learning (TOTAL) approach (Curry, 1997, Curry & Caplan, 1996; Curry, Caplan, & Knuppel, 1991; Curry, et. al., 1994).

The TOTAL Approach

Lewin (1951) suggested a simple approach to change which involves the interplay between two opposing sets of forces. Change, or transfer in this discussion, occurs when equilibrium is disrupted. An existing field of forces is changed by increasing transfer driving and/or decreasing transfer restraining forces. The number and strength of driving and restraining forces will determine if transfer occurs, as well as the extent of transfer. If the strength of the total number of transfer driving forces is greater than the restraining forces, transfer will occur. If the total strength of the restraining forces is greater or equal to the driving forces, transfer will not occur. See Figure 1.

Figure 1. The Transfer Field.			
Significant Actor	**Before**	**During**	**After**
Worker (driving force)			
Supervisor (driving force)			
Administrator (driving force)			
Co-worker (driving force)			
Trainer (driving force)			
Client (driving force)			
Client (restraining force)			
Trainer (restraining force)			
Co-worker (restraining force)			
Administrator (restraining force)			
Supervisor (restraining force)			
Worker (restraining force)			

Transfer will occur if the total number and strength of driving forces is greater than the restraining forces.

In order to visualize the evaluation and intervention benefits of the force field framework, one could imagine three training participants on the 50 yard line of a "football field" (transfer field). Transfer driving and restraining forces before, during, and after training affect the extent of transfer (yardage gain or loss) of each participant. In other words, there are three periods on the transfer field (before, during, and after). Even though the three participants attend the same training workshop, they may have substantially different experiences on the transfer field.

Individual learner characteristics interact with unique environmental events which result in forward or backward movement on the field. For example, one participant may meet with his/her supervisor prior to the training to discuss training relevance and potential applications. As a result of this meeting, the participant probably has an increased learning and application readiness. The participant will probably move forward on the football/transfer field (transfer yardage gain). Let's arbitrarily give this participant a five-yard gain.

Another participant may not have a pre-training meeting with the supervisor. His/her primary reason for training attendance may be to obtain a certain number of hours to meet some sort of training mandate. (S)he may believe that the content of the training will not be relevant to work. This participant will probably move back on the football/transfer field (yardage loss). Let's arbitrarily give this participant a five-yard loss.

A third participant may be notified of the training only minutes before the start of the session. (S)he may be concerned about other aspects of the job not pertaining to training which (s)he planned on completing instead of attending training. This event is probably a transfer restraining force. The amount of yardage loss probably depends on several factors such as individual work style, availability of coverage of workload responsibilities by supervisor or colleague, etc. Let's arbitrarily give this participant a three-yard loss. As a result of a single event for each worker, the participants are at different places on the football/transfer field. Other factors/forces before, during and after training will affect the extent of transfer for each participant.

The TOTAL model suggests that evaluation strategies should assess both the extent (How much?), as well as the process (How?) of transfer (Curry, 1997; Curry & Chandler, 1999). This includes the extent of transfer yardage on the transfer field as well as the factors/forces which affect transfer. Therefore, factors such as a participant's reason for attending, pre-training communication about training, a trainer's efforts to help workers see training's relevance, post-training support from supervisor and peers, and opportunities for utilization of new learning should be assessed. A conceptual model, such as the TOTAL approach, is useful in providing a framework to guide evaluation efforts.

Levels of competence Model

Another useful model utilized a the NEORTC is the "Levels of Competence" approach (Curry & Rybicki, 1995; Pike, 1989). This model integrates information from the fields of cognitive and educational psychology, such as Anderson's ACT theory, with practical information from the field of training and development (Anderson, 1982). The model promotes an understanding of the development and utilization of a skill (from novice to expert) from the workshop to the job. It stresses the importance of assessment of worker competence as well as the worker's metacognitive ability to monitor and guide his/her learning and job performance (meta-competence). Progression through the levels involves

varying rates of time, as well as individual and program activity. Listed below are the five sequential levels followed by a discussion of their corresponding characteristics:

1. Unconscious incompetence.
2. Conscious incompetence.
3. Conscious competence.
4. Unconscious competence.
5. Conscious unconscious competence.

Unconscious incompetence

This stage is characterized by a worker who doesn't know what (s)he doesn't know. The worker does not perform adequately in a competency area. However, the worker is not aware of his/her lack of competence. This may be typical of newly hired workers who do not have an adequate understanding of the scope of the job. This lack of awareness may also describe experienced workers who function well in many areas but are not culturally competent. These workers may ineffectively impose their "tried and true" work strategies, which have worked with "mainstream" clients, to clients of a different cultural background. These workers may also attribute lack of client progress to external factors such as client or organizational resistance.

Worker "burnout" may also be a characteristic of some workers in this stage. Workers at this level will probably not recognize the importance of acquiring additional skills in a competency area because they do not recognize their lack of competence. Therefore, self-assessment rating approaches conducted prior to a training intervention are often not accurate assessments. Supervisor ratings, pre-testing, or self-rating of pre-training level of competence after training has occurred (retrospective pre-assessments) may have greater validity.

Some descriptors of this stage, which could be incorporated into an assessment tool, include:

1. Lacks awareness of the breadth and scope of the job, including this competency area.
2. Competency area is important but worker does not recognize its importance.
3. Tends to blame clients for lack of case progress in this area rather than trying or learning new strategies.
4. Tends to identify organizational/environmental barriers to case progress in this area but does not recognize need for personal change.
5. Continues to use "comfortable" strategies even when they fail to succeed.
6. Unaware of cultural influences on performance in this competency area.
7. Does not monitor self-performance in this area.

Conscious incompetence

Workers in this stage are not yet competent in a competency area. However, these workers are aware of their knowledge, attitude, or skill limitations. They may be motivated to increase competence in order to improve performance or attain other goals. A gap between a worker's competency level and the desired state may occur because the worker may not be performing adequately due to knowledge, attitude, or skill deficiency and remedial training may be needed. A worker may also perceive a gap because of a desire to be updated on more recent techniques. Sometimes, a worker has not used a skill regularly and refresher training is needed. At other times, a perceived need is recognized because the worker's job has changed or there has been a change of clients. In addition, a worker may want to prepare for future career development goals.

Workers in this stage are the most appropriate candidates for training, or some other educational/developmental/remedial intervention. Descriptors of this stage that could be incorporated into an assessment instrument include:

1. Recognizes the need to increase knowledge, skill, or both, in a specified competency area.
2. Recognizes the need to change attitude to be more successful.
3. Requests help in a competency area after recognizing the (s)he has very limited knowledge and skill compared to experienced, competent practitioners.
4. Realizes that the job has changed and needs additional knowledge, skill, or both.
5. Recognizes that the knowledge base of the field has grown and wants to add to personal knowledge.
6. Decided upon a future career goal and recognizes the need to increase knowledge and skill in a competency area to help achieve goal.
7. Recognizes that (s)he is having trouble with certain aspects of the job or certain clients and believes that a better understanding, increase in skill, or both will improve performance.

Conscious competence

Workers at this level may be described as having "emerging competence." A worker in this stage has the knowledge and skill to perform a task, but the performance doesn't happen "automatically." The worker may have to be reminded or cued by the supervisor or competent colleague to utilize the knowledge and skill already stored in long-term memory. Also, whenever the worker performs the skill, it may not be "fluid." The worker may have to "think" about it while performing.

Since short-term memory can only contain a limited amount of information, the worker may have to rely on notes or cues from others. Interaction with clients in this stage necessitates that the worker keep his or her goals, strategies, and information regarding the client in active

working memory. In addition, attending to what the client(s) is saying and doing and monitoring one's own behavior as part of an interactional exchange may overtax one's cognitive processing abilities. For example, during a client interview, the worker may "lose sight" of the goal of an interview and may be unsure of his/her interview techniques, sometimes not using the most appropriate response.

Anxiety can also limit the amount of information that can be maintained within short-term, active memory as well as the retrieval of information from long-term memory into active memory. Over-reliance on notes or needing long pauses to try to remember what to do next may adversely affect the worker's credibility with the client. The result is a less efficient and often less effective interview process when compared to the interview performance of a more experienced practitioner.

In this stage, the worker's understanding and performance in a competency area begins the transition from a collection of relatively isolated pieces of information and facts to a recognition of "if-then" procedures. The worker begins to recognize that certain situations require specific actions or reactions. The worker also begins to recognize the underlying patterns and structure of behavior rather than responding to surface features. With practice, performance steps consolidate and begin to require less active short-term memory, characteristic of the next stage. Some descriptors of this stage which could be included in an assessment tool include:

1. Relies on cues and prompts from supervisor or colleague.
2. Often refers to notes when interacting with client.
3. Interaction with clients appears to happen in distinct steps rather than as a fluid bundle of steps.
4. Frequently pauses and appears unsure of strategy.
5. May at times appear to lose sight of goal.
6. Anxiety interferes with performance.
7. Responds to surface features of behavior; does not easily recognize underlying patterns.
8. Performance does not appear fluid and "automatic." Worker appears to lack confidence.

Unconscious competence

This phase is characterized by a worker who, for the most part, has achieved mastery of a competency area. In this stage, a competency is learned to a level where it can be performed relatively "automatically," Steps to successful performance in a competency area are consolidated and now appear as a fluid, "effortless" activity. The worker uses little active, short-term memory while conducting the skill. (S)he no longer has to "think" about the skill while performing. It has been learned to the level of automaticity. Short-term memory is freed up and the worker can consciously focus on other activities such as self-monitoring.

Ironically, one of the characteristics of this stage is that a competency is learned so well that the worker is no longer "mindful" of the process of how the activity is conducted (the worker doesn't have to be). The worker may intuitively recognize underlying patterns and structures of behavior and respond accordingly. However, (s)he may not be able to articulate the "why" and "how" of his/her performance.

A common example of this process is that we learn many cultural patterns to this level. We learn them so "well" that we are not aware of their influence upon us. Unfortunately, if we do not become mindful of their influence, we will not be effective in cross-cultural interactions. We may inadvertently impose our cultural values, expectations, and behavioral rules on individuals operating with different cultural values, expectations, and rules. This negative transfer of cultural learning to another cultural context results in a movement back to level one (unconscious incompetence).

Some descriptors of this stage which could be integrated into an assessment tool include:

1. Performance appears fluid and effortless.
2. Intuitively recognizes underlying meaning of behavior.
3. Appears confident and goal-directed.
4. Not easily distracted.
5. Able to attend to the subtleties of client interaction.
6. Is an effective role model for others to observe.
7. Can demonstrate effective performance but has difficulty describing the process.
8. Periodically, does not recognize when to not use overlearned skill.
9. No longer monitors self-performance in this competency area.
10. Has difficulty "teaching" the skill to others. May rely on demonstration.

Conscious unconscious competence

This fifth stage is characterized by workers who can not only perform at a proficient level, but are able to conceptualize and articulate what it is that they do so well. These workers may be described as "reflective practitioners" who can also communicate effective practice principles, strategies, and techniques to others.

With self-reflection and help from one's supervisor or colleagues, the worker recognizes the underlying structure to certain situations rather than just the surface features. Workers in the previous stage have an intuitive grasp, but cannot competently conceptualize and articulate these abstract concepts to others. In this stage, they are able to perform proficiently, as well as conceptually understand and monitor the performance process. For example, a worker's understanding of parallel process can be useful in communicating this understanding to colleagues in a case conference. Workers in this stage have a high level of proficiency in the competency area as well as competent metacognitive skills. They are able

to proficiently monitor their performance (learning and application). Metacognitive skills (meta-competence) facilitate the movement from level one (unconscious incompetence) to level five (conscious unconscious competence). Workers in this level are able to "reflect in" (while interacting with clients) as well as "reflect on" (later self-reflection or in supervision or consultation) their practice with supervisor or colleague.

A few descriptors of this stage which could be included in an evaluative tool include:

1. Proficiently demonstrates a competency area and, as well, describes the self-performance process.
2. Effectively communicates competent practice to others in this area in supervision, case conferences, training, etc.
3. Effectively coaches others in this area.
4. Teaches others through training or supervision.
5. May communicate effective practice in the area through professional writing.

The Levels of Competence model is helpful for determining when and what method of training is an appropriate performance intervention, as well as when other activities are indicated rather than training. For example, workers in level one often attend training. Training could probably be more successful if workers had an awareness of the need for training prior to attending the training. Participants in level two prior to training are probably the most appropriate candidates. Individuals in level three are often in need of coaching (in the training setting or on-the-job). Level four workers are typically not lacking in skill and therefore traditionally not considered appropriate for training. However, developing a better conceptual grasp of the competency area and learning to communicate the performance process to others are some of their training needs.

The Levels of Competence model indicates different training goals and strategies at different stages. The model also suggests that evaluators should assess a worker's metacognitive skills in addition to behavioral performance in the workshop and on-the-job. Rather than using assessment tools constructed with "Likert style" anchors, this model suggests the use of descriptors specific to the five competency levels for both self-assessment and observational rating. Unfortunately, only a few documented assessment strategies in human services training seem to be guided by this approach (Curry & Njoku, 1998; Curry & Rybicki, 1995). Human services training evaluation professionals may need to look to other disciplines, such as educational and cognitive psychology, for some assistance in developing evaluative tools from established theory and research (Anderson, 1982; Royer, Cisero, & Carlo, 1993).

QUANTITATIVE AND QUALITATIVE METHODS

In order to successfully identify how and how much transfer occurs, the utilization of both quantitative and qualitative evaluation approaches is recommended. In general, qualitative methods such as participant

interviews and focus groups are helpful in exploring the process of transfer, while the extent or amount of transfer is better determined with a quantitative analysis (Curry & Chandler, 1999; Patton, 1987). For example, a study by the NEORTC utilized a telephone survey questionnaire as well as open-ended items on a mail questionnaire survey (Human Services Training Effectiveness Postcard) to explore the transfer process (Curry, 1997).

A content analysis of the open-ended survey items identified several important factors which helped (driving forces) and/or hindered (restraining forces) the transfer of learning of 598 child protection social workers. The three most important factors identified which facilitated the utilization of learning were: (1) perceived learning, (2) trainer adult learning and transfer strategies, and (3) training relevance and applicability to the job. The three most important factors which hindered transfer were: (1) lack of relevance and applicability of training, (2) poor trainer adult learning and transfer strategies, and (3) lack of time and high caseload demands. A participant's awareness of opportunities to use the training was determined to be an important aspect of the training's applicability.

Nine themes emerged from the telephone interviews that helped to validate as well as pose questions concerning the quantitative results from the same study. For example, a question was raised concerning a factor (opportunity to use) which was identified as a barrier to transfer. The question posed had to do with participants who identified lack of opportunity to use the training as a primary reason for transfer failure. Did the participants have no opportunity or did they not recognize opportunities? The answer to the question implies different approaches to increasing transfer. The qualitative data helped to provide a deeper understanding of the transfer process.

The extent of transfer is generally better assessed with a quantitative approach. The previously mentioned NEORTC study also utilized the Human Services Training Effectiveness Postcard (HSTEP) questionnaire survey to identify the amount, or extent, of transfer. The brief postcard approach was used to promote a high return rate that is essential to most quantitative analysis, which are based on the assumption of normal sample distributions. The HSTEP questionnaire used a scale that ranged from strongly agree to strongly disagree. It was designed to assess the four areas/levels of training evaluation in Kirkpatrick's (1975) model:

1. Reaction/satisfaction (Item #1—Overall, I am very satisfied with the workshop).
2. Learning (Item #2—During the workshop, I learned a substantial amount of information).
3. Behavior/transfer of learning (Item #3—I have used the knowledge and skills I learned from the workshop on the job).
4. Results of transfer of learning (Item #4—As a result of using the knowledge/skills from the workshop, I have observed client progress; item #5—As a result of the workshop, I am a more effective worker).

In the study, items 3, 4, & 5 were combined to create a variable "transfer." Similarly, assigning values from one to five (strongly disagree=1, disagree=2, undecided=3, agree=4, strongly agree=5), all five items can be combined, averaged, or both to create a user-friendly, single score of training effectiveness. Workshops can be compared with each other based upon a common indicator which incorporates Kirkpatrick's four evaluations levels. Table 1 displays workshop titles and their corresponding HSTEP mean and standard deviation scores from the NEORTC study. The overall mean score for all of the listed workshops was 3.77 with a standard deviation of .79. Clearly, the workshops had varying degrees of perceived impact on the job. The reader is referred to Curry & Chandler (1999) for a more in-depth description of the HSTEP and its psychometric properties.

Table 1
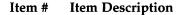### HSTEP Mean and Standard Deviation Scores by Workshop

Workshop Title	Mean	S.D.
Diagnosis and Treatment of Adult Emotional Disorders	3.66	.65
Secondary Trauma	4.21	.39
Family Assessment in Sexual Abuse Cases	3.24	.71
Hispanic/Latino Culture	4.02	.71
Adolescent Suicide	3.77	.57
Reality Therapy	3.66	.69
Dealing with the Death of a Client	4.03	.54
Crisis Intervention	3.47	.62
Adolescent Sexuality	3.62	.74
Leading Support Groups	3.64	.63
Seeking Closure: Secondary Trauma	4.11	.59
Family Centered Practice	3.81	.72
Reducing the Risk of Liability	3.59	.81
After Placement: Working with the Foster Family	3.91	.55
Understanding Childhood Psychopathology (DSM IV)	4.10	.39
Transcultural Placement	3.83	.31
The Mother/Daughter Relationship	2.99	1.03
Psychopharmacology for the Caseworker	4.25	.55

Attention Deficit Disorder	3.38	.85
Therapeutic Issues in Child Sexual Abuse Cases	4.17	.76
Maximizing Your Effectiveness (Time and Stress Management)	3.42	.85
Effective Casework with Gay and Lesbian Clients	4.31	.86
Understanding the Dynamics of Family Violence	4.29	.52
Assertive Communication for Effective Communication	4.00	.52
Street Drugs	3.74	1.06
Overview of Child Sexual Abuse	3.80	.36
Working with the African-American Family	2.89	1.28

Although qualitative analysis is often preferred when exploring the process of transfer, transfer driving and restraining factors were also examined in the NEORTC study in a quantitative manner with the use of another survey (Transfer Potential Questionnaire). Table 2 provides examples of items from the Transfer Potential Questionnaire (TPQ). Factor analysis of the TPQ identified eleven factors which significantly correlated with the HSTEP composite variable "transfer." Some of the more potent driving and restraining factors/forces included a worker's perception of the relevance and applicability of the training, adult learning and transfer instructional strategies utilized by the trainer, and the amount of learning perceived by the worker. A worker's pre-training preparation and later planning for application were also found to be important factors. Organizational variables such as supervisor, adminis- trator, and co-worker support, as well as the degree of congruence between the training content and the organization were also found to influence application of learning. Individual factors prior to training, such as a participant's motivation to attend training and previous experience with training and application, were also found to affect utilization of training, but to a lesser extent than the previously mentioned factors.

Table 2
Sample Items From the Transfer Potential Questionnaire

Item #   Item Description

1	As a result of training, I learned a substantial amount of information.
8	My supervisor is familiar with the content of this training.
18	The trainer helped me to see how the training can be applied on the job.

23	I have already made a plan with a co-worker to utilize this training.
35	I am very confident that I will use this training on the job.
46	The trainer/training helped me to become aware of underlying principles (rules) which can be used with different cases and situations.
47	Prior to attending the workshop, I heard that this training was "worthwhile"/valuable.
63	This content is consistent with my agency's mission, philosophy, and goals.
65	This training will help me continue learning in this topic area.

The TPQ also successfully predicted effective and less effective transfer participants. In addition to identifying transfer factors and suggesting transfer intervention areas, the TPQ can serve as a quantitative outcome indicator (transfer potential). Since it correlated with transfer ($r=.62$, $p<.0001$) and successfully differentiated between high and low transfer participants, the TPQ may serve as a useful tool which can be used at the time of training, rather that at a later time when transfer is expected to occur.

Currently, the TPQ consists of 68 items. In order to make it more "user friendly," the tool could be downsized to a more manageable number of items. Validation of a fewer-item version with various human service populations, would enhance its usefulness. The reader is referred to Curry (1997) for an in-depth description of the TPQ's psychometric characteristics. Evaluation of training should determine both the extent, or amount, of transfer and contribute to an understanding of the transfer process. A combination of quantitative and qualitative approaches should be utilized. There is a need for further development of both approaches. The HSTEP is an example of how both quantitative and qualitative information can be obtained utilizing one instrument.

GENERIC AND TRAINING-SPECIFIC INDICATORS

The development of common indicators of training utilization such as the HSTEP would be helpful in comparing different trainings. Just as the NEORTC has a database of thousands of participant reaction/satisfaction evaluations that were completed after each workshop, application indexes could be maintained in a similar manner. As done routinely with the reaction evaluations, the application index ratings could be provided to the trainers on a regular basis. Judgments about training success could then be based upon transfer information as well as reaction/satisfaction ratings.

A common indicator would also encourage experimental research. For example, the effect of specific transfer interventions such as the use of action planning could be compared across different content areas.

The HSTEP is one example of a common indicator that can be used with almost any type of training. Another example is the Participant Action Plan Approach. The extent of action plan objectives completed can be determined and compared across trainings (Delewski, Pecora, Smith, & Smith, 1986; Tracy & Pecora, 1988).

While there is a need for common indicators of training effectiveness, there is also a need for more specific indicators of transfer. These indicators must go beyond generic indicators such as the HSTEP and provide a more in-depth assessment in specific content areas.

Sometimes, it is essential to know which specific training content area is being utilized or not utilized, as well as the quality of the application. Not only is the amount of transfer important, but also the timing of when training content is utilized. New learning applied in the wrong situations, can have undesirable results. For example, the use of newly learned physical intervention could escalate into a situation where injury occurs. Knowledge of application and misapplication of training content is important evaluative information.

In certain training content areas such as managing aggressive clients, numerous training packages exist. However, there is little evaluation or research examining the effect of these packages on the worker's job performance. In what ways are the workers' practice altered (if at all) by these training packages? The utilization of both common and content-specific transfer indicators could help training and development practitioners choose the right package for the right purpose and examine how training has affected worker performance.

Content-specific transfer indicators have been utilized at NEORTC mostly in the form of self-assessment inventories. For example, the use of pre, post, and three-month post self-assessment ratings on competencies have been conducted on Caseworker Core, Supervisor Core, the Child Welfare Trainer Development Certificate Program, and other training content areas. The use of retrospective pre-assessment has also been conducted. In some cases, the use of observational inventories and checklists have been used. For example, participants from the Child Welfare Trainer Development Certificate Program were assessed on the job by independent observers, utilizing a standardized trainer monitoring instrument.

Although self and sometimes supervisor assessments have been utilized by NEORTC and other training programs, the use of training-specific indicators assessing performance on the job, such as those which involve observational data, appears to be scarce. Additional work in this area is much needed.

CONCLUSION

Since evaluation of transfer of learning in human services is still a new frontier, training evaluation professionals can provide an evaluation platform to build from, by first utilizing a conceptual framework, such as the TOTAL and Levels of Competence approaches, to guide transfer

evaluation planning. In addition, the use of both quantitative and qualitative methods can help to assess the process and the extent of application of learning on the job. Finally, an emphasis on both generic and content-specific transfer indicators can help in making comparisons among training alternatives as well as providing suggestions for program improvement.

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