

TRAINING, LEARNING AND PERFORMANCE

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ABSTRACT

In this work we set out to provide the theoretical and conceptual basis for an approach to adult learning and performance. The idea is to demonstrate a confluence of theory and constructs that support instructional activities for adult learners in a work setting. Proposed is a model and method that involves employees in: (1) the development of training for performance improvement, and (2) the creation of templates for performance [scripts for enacting critical performance events (CPE)]. This creative activity is followed by practice in the operating environment that ultimately leads to employee reflection on their efforts and reporting of what was learned so as to improve the templates for performance.

INTRODUCTION

In many, if not most organizations the unpredictability of events and conditions is great and change is taking place at an unrelenting pace. The pace and amount of change experienced means that both learning and performance is subject to modification on-the-fly. Many managers have to make changes, take action, and decide on future directions before they have a chance to learn all they need to learn in anticipation of changes. When it comes to performance, particularly employee task performance, “getting it right” the first time in terms of quality, quantity, level of skill applied, and so on, is probably illusory. In many cases, performance and its improvement represent moving targets and it is reasonable to think about performance as something that must be enhanced and improved over time per incremental adjustments.

With regard to training and education for performance in regular business operations there are many models of instruction, training, personal and/or organizational development available to academics, researchers, and practitioners. Under the rubric of practitioners we could include varieties of instructors, facilitators, consultants, trainers, and managers. Most of the instructional models are grounded on a single theory or concept and there has been little effort to create instructional approaches that integrate several theories or concepts into a powerful or robust model that may serve several interrelated purposes (Dehler, 2001; Kayes, 2002). Such purposes may include learning: new information or skills (including learning how to learn individually or in groups), to solve problems, ways to structure an approach to learning, problem solving, and continuous improvement at once; and learning how to create personalized models for continued learning and improvement of performance. This learning may relate to the individual in a personal context or to a job or position in an organizational context.

People are inquisitive beings that continually search for better, more efficient and effective ways to do things. Models of instruction and development should reflect both efficiency and effectiveness of effort and, at the same time; reflect process elements that are mutually reinforcing (Lyons, 2005). We know a great deal about human learning and motivation and we need to express instructional approaches for adults that draw from what we know -- from what research tells us (Pearce, 2006). It is also important to combine activities that take us from the attainment and assimilation of information to application and use

of that information in ways that adults find motivating, effective, satisfying and that clearly contribute to improved performance. Finally, we need to combine learning activities that have consequences that are transferable to different settings and contexts and that may be used for improvements in what we do, think, and achieve. This paper makes an effort to address these matters.

Purposes of This Work

In this work we set out to provide the theoretical and conceptual basis for an approach to adult learning and performance. The idea is to demonstrate a confluence of theory and constructs that support instructional activities for adult learners in a work setting. Much of what is offered is taken from the author's research over the past decade. That body of research has relied upon social learning theory, experiential learning theory, creation and use of scripts, constructivist approaches to learning, and other concepts to demonstrate effective approaches to training and learning in organizations.

Theory and method combine to create learning activities that help to illuminate as well as change fundamental assumptions, enable learners to develop self-efficacious responses to complex problems (individually and in groups), and provide contexts for learning that are stimulating and tap into personal motivation (see, for example, Bourner & Flowers, 1997).

We believe that the approach or method guiding instruction and learning should take on a life of its own, that is, the method itself should offer and then become, for the learners, a learning platform or scaffold; a structure that may support learning for different purposes presently and in the future. Learning method and learning content are thus separate yet intertwined and mutually reinforcing. And this is only part of the landscape because method offers a way of being and thinking while content that relates to knowledge, skills, and dispositions offers improved means of performing supported by a deliberate effort to reinforce and improve both learning and performance.

Ultimately, we want to establish a theory-grounded, robust approach for instruction and guidance that has very practical consequences for participants. The approach must reflect what we currently know about adult motivation and learning in general. The consequences resulting from participating in the approach must reflect learning and change as well as improved performance in an organizational context.

BACKGROUND

There are several important needs that drive the interest and subject matter of this paper and they are summarized here. We need instruction and training models that:

- ❑ represent robust, rich instruction-learning approaches that serve multiple, related purposes, not the least of which is performance improvement;
- ❑ may be personalized for learning and performing in a variety of contexts,
- ❑ may be managed for both effectiveness and efficiency, and
- ❑ have transfer of learning potential and at the same time serve as a scaffold for advanced learning and continual performance improvement.

It is a reasonably large order to create an instruction and training approach that will effectively address all of these needs. This paper offers the basis for the model only. Testing of the approach is to be conducted in the future. In addition to addressing the needs listed above, the model proposed should also make a concerted effort to address several important topics that are central to instruction, training, and performance. These topics include:

- ❑ enhancing adult learning in social contexts [this may include dynamics of groups in a performance context such as social facilitation, identity, information processing (Lord & Kernan, 1987; Bandura, 1997; and Lyons, 2006);
- ❑ helping employees to apply learning to make improvements in task achievement, contextual skills, and overall competence (Gilbert, 1996);
- ❑ using what we know about adult motivation to enhance learning (Latham & Pinder, 2005),
- ❑ helping employees in the creation of new knowledge (Mezirow, 1990), and
- ❑ helping our employees (at any level) to learn and use reflective skills such that they learn to review, re-visit, and examine their own methods and processes of attaining and using information (Kaye & Kaye, 2005).

In addition, it is most desirable to augment or expand the valid, practical models of performance improvement that have been established over the past several years, such as the ProMes model, which has a 25-year history of success in performance improvement (Pritchard, 1990), and the Multiple-Linkage Model of Richard Chang (1995) that has a demonstrated track record of success in performance improvement. The Performance Template approach expressed in this paper offers improvements in these existing, successful models, although empirical testing of the templates' use is not part of this work.

In the following segment of this paper we present the general features of the model under consideration. Then, the theory base for the instruction component is presented in detail followed by an example of the model in practice.

GENERAL FEATURES OF THE MODEL

Up-front we assume the managers, leaders, and key operatives know well their business and its operations. In the approach that follows performance and learning are regarded as combined in a series of contemplative steps. Descriptions of the learning and performance dynamics are explained below.

In the model cycle, managers must first identify key processes needed for high quality performance of important tasks and functions. So we start with this – clear explanations of the key processes.

1. Once processes are carefully defined (most businesses already have done this), then per each process managers must identify the critical performance events (CPE). These events relate to the training, guidance, coaching and learning required because the information and skills involved in each CPE are of vital importance.

2. There must be some discussion among the designers and crafters of the actual training and the managers who oversee key processes in order to flesh-out the essential features of the CPE for which information, knowledge, and skills are to be created, developed and/or enhanced. We need consensus among designers and management in this phase. The consensus can be based largely on coarse or granular features -- that is, the detail work, the "grinding and polishing" may occur over time in subsequent learning encounters.

3. The training, itself, can be shaped in many ways. What must result from the training per a given CPE is the Performance Template [PT, hereafter – Template].

Training and education in the construction of the template makes use of a variety of methods, tools, and concepts. The training must be appealing to the typical adult learner. Assumed here is that the training is

conducted in groups, preferably small groups in order to encourage maximum, individual participation in the template-building process.

4. Once one or more templates have been developed (all of them are in a tentative state – nothing is “final” in the usual sense), then employees must use them (practice) in regular work situations in critical performance events [CPE]. The templates can be made available in print, CD, and on a web-site.

5. Each time a template is used in a CPE, the employee is expected to reflect upon use, note what was learned (reactions of customer, missing information, guidance as per application, etc.) and feed that information back to the design staff (person). This part of the capture process can be facilitated with forms, instructions, as well as electronic, web-based reporting formats. Research (Kleingeld, et al., 2004) has demonstrated that involvement of employees in work of this type, as informed participants, results in improved performance.

6. Adjusting the template. Some basis must be used for timing, frequency, etc., of up-dating and revising the templates. Actual frequency of use of a template may dictate the basis for adjustment. Regardless, templates need to be adjusted based on learning. Adjustment may relate to information (product, service, etc.), customer needs and wants, and/or the skill features of the template (e.g. use of follow-up questions in sales contacts) among other things.

This last step relates to the transference dynamics of learning. This is the crucial step in this template process because the learning is amplified for several levels. For example, suppose the group of interest is sales agents for a global publisher of college texts and related print and web-based materials. There may be dozens of sales agents in our group. In number 6, above, the information learned from implementation of a particular template by our sales agents from activities such as individual customer visits, bookstore exhibitions, exhibitions at academic conferences, and so forth is fed back into the template development process. The information has implications for learning transfer for at least three groups of individuals (training staff, managers, employees), and perhaps other individuals.

Assuming that the initial viewer of the fed-back learned information is the individual responsible for training, template development and promulgation. This person learns from the exchange. The information fed to management provides not only information aimed at template development and revision but also aimed at critical performance elements of a larger process. Contemplation of these elements offers opportunity for management development and transference of basic information to important performance components. Managers also have the opportunity to learn whether the information learned and passed on by the sales agent has implications for other matters. Perhaps some observation passed on by a sales agent is a bellwether of some trend, etc., in the making. At the extreme, such learning could be substantial enough to assist business strategy development. Obviously, the sales agent has learned something otherwise he/she had nothing to pass on in the first place. Learning, as expressed here is clearly anticipated by management, and is part of the psychological contract.

These last (above) considerations set the stage for management development in terms of apprehension of and actions towards modifications in business practices, recognition of new opportunities, mentoring/coaching of staff (see for example, Pollitt, 2006) and the championing of change. These considerations and features represent the main characteristics of the model. On the pages that follow we describe details of the training processes that lead to the construction and use of the performance templates.

THEORY BASES FOR INSTRUCTION AND DEVELOPMENT OF PERFORMANCE

TEMPLATES

Experiential Learning Theory

For our purposes, learning is generally defined as a change in performance. Adult learners make use of several forms of educational or training processes and in this paper we rely on the use and influence of experiential learning theory [ELT] as used in the creation of performance templates, particularly in the training portion of the work. Experiential approaches usually seek to involve learners in new experiences, tend to be somewhat holistic in nature, and often integrate other approaches into a single framework as action, cognition, reflection, and experience (Kayes, 2002). In general, experiential approaches include action-driven learning approaches that seek to improve task behaviors that contribute to effectiveness in achieving goal-directed outcomes. Also included are cognitive approaches that are concerned with thinking processes (e.g., memories, perceptions, representations) that emphasize intra- and interpersonal transformations that take place within and between employees, and employees and managers. Finally, reflective approaches as part of experiential learning tend to focus on processes of self-discovery and questioning whereby employees learn to reflect critically on their assumptions and beliefs, and then, ultimately, free themselves from assumptions that limit their perspectives.

ELT, as an interdisciplinary field, is grounded in philosophy, anthropology, sociology, psychology, and cognitive science (Carver, 1996). In the past 100 years there has been much study and empirical research regarding experiential education and experiential learning and the traditions of experiential learning extend from the writings of Dewey (1933) to the current day (Mezirow, 1998; Kolb & Kolb, 2005). Perhaps the most established and discussed model of experiential learning is that of David Kolb (1984). The performance template creation and use examined in this paper parallel, in sequence, the behaviors explained in Kolb's model of experiential learning. Kolb's model (1984) is grounded in the humanistic concept that people have a natural capacity to learn. Experience acts as the catalyst for engaging in the process of a dialectic inquiry - process that is based on and confined to the data of human experience. The process operates whereby knowledge is created through the transformation of experience (Kolb, 1984, p. 41) and the learning activity rests on six assumptions: Learning

- (a) is a process, not an outcome,
- (b) derives from experience,
- (c) requires an individual to resolve dialectically opposed demands,
- (d) is holistic and integrative, it goes beyond cognition to include thinking, feeling, perceiving and behaving;
- (e) requires interplay between a person and environment, that is, we assimilate new experiences into existing concepts and accommodate existing concepts to new experiences; and
- (f) results in knowledge creation.

Moreover, learning involves the interplay between two interdependent dimensions of knowledge: acquisition and transformation (how to get information and what to do with it). Each dimension requires an individual to resolve a dialectic or a set of competing learning tensions. In *acquisition*, the learner resolves the tension between apprehension (concrete experience) and - comprehension (abstract conceptualization). Apprehension is the taking in of information, while comprehension is when the learner breaks down this information into meaningful events and places them within a symbolic system of culture and society (how the information fits with what we know/believe).

This knowledge (acquisition) interacts with the second learning dimension:

knowledge transformation. Here, one resolves the tension between knowledge intention (reflective observation) and knowledge extension (active experimentation). The learner moves inwardly to reflect on previously acquired knowledge. Then, he/she moves beyond the self to interact with an external environment.

Taken in concert, these four processes constitute the learning cycle. As learners and managers resolve these dialectical tensions, they orchestrate their way around the cyclical process of learning. Learning, then, is a continuous process of responding to diverse personal and environmental demands that arise from the interaction between experience, conceptualization, reflection, and action in a cyclical, but not necessarily orderly, fashion. The four processes mesh very well, indeed, with the performance template activities identified in this paper.

In applying the performance template approach to learning we find that to learn requires facing and embracing differences; whether they be differences between skilled, expert performance and one's novice status, differences between deeply held beliefs and new ideas, or differences in the life experience and values of others that can lead to understanding them (Kolb & Kolb, 2005).

Background for Creating Performance Templates

We know that business or organizational competitiveness is tied to improving managerial skills as well as improving the training and development of the workforce, that is, the enhancement of human capital (Worrall & Cooper, 2001). The quality of performance of human resources is usually grounded in the application of skill and knowledge competencies. Skill is the application of some behavior that has some discriminations of mastery, for example, quality and/or quantity.

Like competence, skill has relativistic referents and virtually every task or job may be performed more or less skillfully depending on results achieved, time used and resources applied. Both competence and skill are qualitative terms. If we can improve an individual's skills we are also improving their competence and their capacity to more carefully discriminate among alternative approaches to skill application.

We base creation and maintenance of performance templates [PT] on what is often referred to as a constructivist approach to employee learning and change. In such an approach the employee is constructing or creating new knowledge over a foundation of prior or previous learning. If what we discover in taking on new learning activities is at variance with what we already "know", we have choices to make about behaving and performing differently. In the context of templates as presented here individuals, working together to improve performance, make meaning socially as they construct their experience together so they can cooperate and communicate and achieve consensus about what is happening. There are multiple representations of reality and managers and employees, together, construct reality and the construction is ongoing and changing as accepted meanings and understandings among or between individuals are negotiated in a social context (Raelin, 2000).

Use and Functions of Performance Templates

We suggest that template creation as a process may be used in organizations, on a small or large scale, to identify domains of knowledge, skills, and abilities that represent the individuals of a particular group or unit who need to carefully execute critical performance events (CPE). Individuals using direction and guidelines map the activities and competencies needed for quality execution (Lyons, 2003). The template is the result of a process of listing critical skill and knowledge elements of a task, job, role, or unit so as to demonstrate or discover, or re-discover, what is needed for successful performance. Identities and listings are followed by activities that seek to create refinements of skilled behavior, integrate (or create) standards for measuring skilled performance, and related activities. All of these elements are needed for a

template.

Commencing with templates relies on the analysis of performance in some general-to-specific areas. The analysis of performance relies on current practice, recent data and historical information. For illustrative purposes, we need some target performance domain. Our earlier example supposed a sales function and we have several agents primarily involved in direct selling to customers in-person, at exhibitions, or by some other means. This sales group we refer to as a team and this team will be subject to education and training in template creation.

Our performance domain within sales is "assisting the customer to define his/her needs." This is a CPE that is a segment of a larger process. Please keep in mind that we have assumed that the organization and its managers already possess considerable information and knowledge of its important processes. Further, suppose that a variety of performance indicators such as data from customer satisfaction surveys, random telephone surveys of customers' buying experience, unsolicited communications from customers, observations of associates' performance with customers, and other means have yielded information that indicates that knowledge and skill of associates in dealing with needs of customers is an area that likely requires improvement in quality. Explicit benchmarks may or may not have been established and details regarding benchmarks are beyond the scope of the present paper. Analysis should ordinarily result in the identity of performance gaps or problems. Such discovery is central to the overall process of creating and maintaining a performance template.

Once performance gaps have been identified, clarification and meaning, it is important to establish objectives for improving the process. Ultimately, we want to be able to specify what performance is desired and how much improvement is needed. We need to address the focus of improvement efforts. For example, is the improvement only at the individual performer level, or, is it at the level of a unit, or a team? Might the improvement be focused on a combination of levels? In the example provided above (assisting the customer define his/her needs) the primary focus of improvement level is the individual performer. Also, given the nature of improvements, what implications do they have for management intervention, training and so on.

Objectives should be general enough to allow the template builders enough freedom to find good solutions and specific enough to convey what the change effort ought to accomplish. Changes need to be driven by ends and not means. While the quality of the thinking and effort that goes into the construction is important, it is merely a means to an end, that is, identities of improved performance activities. One way to quickly make progress with the creative work is to construct a skills chart (Lyons, 2003). The chart starts out as a graphical representation of activities and behavior that *might* be part of a task process where the employee needs to behave in a more skilled manner to be effective. As performance gaps are known, the group commences to chart, on poster sheets, whiteboard, Powerpoint, etc., the bits of information, data, intuition, guesses, expert opinion, and so forth, that may influence improved performance. Then we commence with a type of brainstorming activity to identify improvement ideas and strategies.

The creation of the chart is just the beginning. The construction of the chart serves as a as a graphic organizer of ideas. Individuals or small groups can brainstorm a number of ideas, behaviors, or performances that may help to define skilled performance in some area. Again, our sample skill area is: assisting the customer to define his/her needs and we are assuming that our individual or small group used this skill area as its stimulus or trigger.

The team lists the major activities, and actions that would need to occur as part of a skillful repertoire of behavior to address the performance gap. This is how the physical map commences. Several significant component areas could be identified, such as these examples:

Initial encounter with customer (in-person, other)
Creating questions and using questions with the customer
Active listening to/with the customer
Reflecting and summarizing customer statements
Focusing on how product/service choice meets customer needs

The next segment of this work addresses a detailed example of the creation and implementation of a Performance Template.

Performance Template - A Detailed Example

Scripts - In General

The process of activities that includes the construction and maintenance of a template incorporates, in large measure, the creation of a script and makes use of experiential learning theory and use of skill charts. In general, a script is a hypothesized cognitive structure that upon actuation provides a guide to appropriate behavior sequences in a given context or situation. We tend to think of a script as a product, output, or result of some intellectual work. It is an entity, a thing that has been produced. Unlike a play or movie, script as used in this work is not an explicit, word-for-word expression of what to say or do in some circumstance or sequence of events. Rather, the script is a guide to action. While the script-as-guide is a product, the activities that create the script are the main focus of this paper and the activities stimulate learning in different ways. The details of the activities are described later in this work.

According to Lord and Kernan (1987) scripts may serve a dual purpose: they help one to interpret the behavior of others, and aid in generalizing behavior. Hence, they may guide the planning and execution of familiar and/or repetitive tasks. In supervisory or managerial work, for example, it is likely that relatively common scripts exist for a variety of activities such as conducting informational meetings, coaching an employee, conducting performance appraisal sessions, and the like.

In script creation processes, individual and small group task assessments may be presumed to be causally related to both task motivation and satisfaction (Thomas & Velthouse, 1990). The growth and change in one's knowledge and understanding as a result of the processes should lead to increased self-efficacy and quality of performance. The work of Griffith (1999) in the use of a reflecting team in case work supports these assertions. The motivational aspects of the learning in script creation include a variety of self-referent processes involving self-monitoring, personal goal-setting, outcome expectations, and self-efficacy (Bandura, 1997, 228). These activities promote interest in intellectual work through the investment of the self-system in them. Hence, working through the script processes to achieve useful products demonstrates successful performance which translates to enhanced motivation and self-efficacy beliefs.

The general dynamics of the learning that occurs in the activities defined in the preceding paragraphs reflects upon the social context of a learning team as the learners, by design, work through a sequence of steps that guide them in their adaptive responses. Consistent with the work of Wise (2002) the steps, additively, should positively influence self-regulation, outcome expectancy, and self-efficacy.

In the sense that scripts are used here, scripts are flexible, adaptable, constructed tools to enhance performance and learning. Typically, they are not end-states or final -- they are steps on the road to skill development and continuous improvement. Again, the word *script* carries certain meanings and there may be a better word to use in its place. We don't yet know what that word is. The words, routine, or program, do not seem to be improvements over the word, script. For our purposes, the script is but a part

of the Performance Template. What follows is an example of a complete template creation and learning sequence of activities.

Performance Template - Sequence of Activities

As mentioned above, it is assumed that nearly all of the participants in the activities outlined here are knowledgeable about the business and have substantial experience in the business and industry. What follows also assumes that learning and performance are combined in a series of steps or phases and that it is sometimes difficult to discern where instruction, learning, and performance intersect as they influence one another. The process explained here is a general process, one that may be adapted to a variety of training and educational purposes.

1. Target performance. First, we commence with knowledge regarding a specific activity or process that is a well-understood performance domain. For our purposes here we use sales of college textbooks by agents of publishers. The sales agents have several venues in which to operate such as: sales calls to college faculty, program directors, and the like; exhibits at professional and/or academic conferences, and bookstore exhibitions. We may isolate a single process in the work or task environment, such as a conducting a sales call. Further, we isolate one area of that process, "assisting the customer to define her/his needs." This is the target area for the construction or creation of a Performance Template. In well-managed companies it is reasonable to assume that much work has already been completed with regard to training and education for agent success in this critical performance event. That is, it has already been determined that *assisting the customer to define her/his needs* is an area for which training and practice has been examined and implemented.

2. Training Design. Second, with or without the history mentioned above in step #1, above, we are now embarking on the process of creating a template. This means that training for *assisting the customer, etc.* will be re-considered, re-formulated and so on to embrace not only the behavior needed to be successful in practice, but to include the iterative actions used in updating the practice guide to increase learning and to leverage learning. Training designers and managers need to agree on how to best carry out the new training for it to result in a practical, meaningful template for performance. This may include some adjustment to the definition of the critical performance event.

3. Implement Training. Once general agreement is reached regarding the basic ideas and assumptions, the training needs to commence. Actually, the training is akin to guided discussion as the sales agents are to do most of the work in the creation of the performance template. We commence with the existing need, *assisting the customer, etc.* and any existing, detailed guidance (models, scripts, etc.) for successful implementation of the behavior. The process is facilitated by one who has attained familiarity with the script creation approach. Participant(s) review the information for completeness, understanding, and common meanings. Clarifications are sought. For our example (see above) the participants need some dialog with the facilitator to clarify basic terms, purposes of customer needs identify, responsibilities of and accountability of the agent and related matters.

Discussion takes place in open forum. We seek to clarify what we know, what we do not know and/or have questions about. This discussion has as one of its objectives the commencement of recognition of information and performance gaps. At the least, we need to attain consensus about the critical issues, assumptions and problems that the information reveals to us in a practice (in-the-field) sense. To assist in this work we use Brady's (1996, 2004) conceptual framework to shape and crystallize our mental models of reality. That is, we want to address or help give shape to situational issues using these five elements or screening tools:

Time aspects- currency, immediacy etc.,

The Setting - milieu, customers' features, background, etc.

Actors - history of the sales target, past relationships with our company, satisfaction with our products, etc.

Social Patterns - (if any) past relationship with this customer, common interests, experiences with product of other professionals, etc., and

Assumptions - what do we take for granted; what is clearly "true."

Superimposing these five categories of information on our sales example, we begin to quickly fill-in some of the gaps in our knowledge and understanding. That is, the categories help us to focus on critical elements of the context and the interrelationships among characteristics of the context. Questions regarding when, what, why, and so on help participants to visualize a clearer view of what may be going on and what may need to take place.

Brady's framework helps to provide criteria for content selection and emphasis. It also helps us to envision possible relationships among various aspects of reality. A fundamental assumption is that participants already possess considerable knowledge and need to reorganize it to make it more useful. Participants need to supplement knowledge with insights and skills that will help explain more fully what they already know (Brady, 2004, p. 280). This particular step in the process is representative of constructivism in action. The scaffolding of information known and understood regarding the sales encounter takes place in a give-and-take discussion. Some consensus building takes place among participants. Prior learning and assumptions may inhibit or accelerate learning in the group.

4. Performance Adjustment. As part of the training activity, brainstorming potential interventions for treating the issues, questions, and concerns takes place. Once possible template content is identified, tasks are parsed to the individual(s) or groups as follows:

List - What is the specific behavior required to skillfully execute the application of the template [again, assisting the customer to define her/his needs]

Access/Summarize - What research, authoritative information, etc., must be reviewed and considered to successfully implement the template?

Reconcile - In order to put forth a tentative action plan for template content, it is necessary to reconcile our behaviors list with the research information in order to identify and recommend a more precise set of behaviors.

In this aspect of the work we need to be very clear about the differences between performance as behavior and performance as outcomes. Another way to state this is that activities and tasks are important and need to be well defined and understood; and the results or outcomes of the various activities must be defined, made clear and understood (Cardy, 2004). It is in this work we find both constructivism and experiential learning emerging. Information is known and revised; the concrete experience of sales work shapes ideas; reflection occurs in order to augment understanding and to launch personal theories of actions to take, or at the least, consider. The foundation of the template takes shape.

5. Template Identity. At this point there is identification of the behavioral elements necessary to address the issues or problems heretofore examined. Consensual processes have taken place to achieve this result. The result is temporary as validation processes still need to occur. Per our example (above) we now have some reasonably clear notions of what specific behaviors need to occur in order to help assess customer needs. If we were starting the process completely from "scratch," a key segment of the entire process is near completion. Learners have achieved some objectives and this encourages feelings of self-efficacy as mastery and control of the creative process is evidenced.

The template information is recorded using, as needed, descriptions, graphs, charts, and so on. The information needs to be in a form for reproduction and dissemination.

6. Model the template. The modeling is a rehearsal and such rehearsal requires the leadership of the facilitator. Participants actually act-out (perform) for each other the behaviors heretofore identified. In terms of experiential learning, this phase represents active experimentation.

7. Field work. The template is now ready for trial in actual work situations. At this point in the overall process, when a template is used as a part of a critical performance event, such as our sales call example with its constituent parts, the sales agent is expected to reflect upon use, note what was learned (reactions of customer, missing information, etc.) and feed that reflective information back to the training design staff (contact person). This part of the capture process can be facilitated with forms, instructions, as well as electronic, web-based reporting tools. This capture process matter is very important and could be the subject of a separate study.

Expectations: Management and the design staff will know, on average, how many sales calls are made in a week, so some percentage of the calls, as a minimum, should be selected by the sales agent for reflection or reporting. Not every critical performance event needs to be recorded – sampling is appropriate. Management and design staff need to create some clear expectations regarding this activity.

8. Adjusting the Template. On some schedule to be determined by training staff and management, templates-in-use are updated with input from users and evaluation by staff and managers. The schedule could be on a bi-weekly or monthly basis. The new template information is then made available to all relevant parties. The updated templates reflect what has been learned and how that learning may contribute to timely, improved performance.

9. Feedback and Iterations. Assuming we have codified the templates currently being used, the revised template for a segment of a critical performance event should be sent to all participants. This may be done per an electronic data base of all templates to be downloaded by participants. The overall process repeats, the sales staff is responsible as part of their normal responsibilities to participate in the on-going template adjustment process. Recent research (Pritchard, et al., 2007) has demonstrated that when individuals have access to information such as that in the templates, that is, both simple and complex information, they use the complex information in the intended ways. This concludes the detailed example of the entire process.

Evidence of the Effectiveness of Similar Template Creation Activities

Several training and educational approaches demonstrate the effectiveness of processes which are similar to yet not exactly the same as performance template work. Most of this work is focused on script creation. Frankly, we do not know of many unsuccessful attempts in the use of the methods as such efforts do not find their way into the literature. We report here, briefly, upon the research to which we have access. Keleman and others (1993) used script creation and management to demonstrate how group support systems can be made more effective. The primary focus of their research was the implementation and use of group support systems in various arrangements for problem-solving, decision making and so on. They developed an approach that permits a facilitator of a group to enable script creation and script adjustments on-the-fly in real time situations with problem solving groups. The approach enables better use of time and more effective use of information by the group.

Lyons (2003, 2004a) used script creation processes extensively in skill development and performance improvement training and education. Script creation was housed within a training design that applied skill charting activities. Skill charting is a tool that uses the general script creation model explained earlier in this work to help a group of employees or students to focus very intensely on skilled, behavioral

performances that attend a particular key result area, such as customer satisfaction. Performance definition and focus are critical elements in the process and once skill attributes and behaviors are identified, in this example - customer satisfaction pursuant to some types of transactions with employees, the learners go on to create performance standards for each one. The process is somewhat reflexive and self-reinforcing. In one study (Lyons, 2003) team leaders' performance of specific supervisory and leadership skills with team members was improved from using script creation processes in their training. In another study (Lyons, 2004a) a senior management team making use of script creation processes was able to positively influence a serious employee turnover problem through the skillful creation of behavioral profiles of ideal work associates.

Finally, in a recent study (Lyons, 2004b) a training model was developed that made use of hypothetical problem situations (cases, incidents) with script creation activities superimposed on the case analysis work. The resulting approach was named Case-Based Modeling and was used to improve the performance of team members in certain performance areas such as skillfully managing meetings. The approach has broad applicability for training in general supervision, management, and for higher education in business and management. With adaptation, the approach could be used in many different situations and with many different occupational groups.

SUMMARY AND CONCLUSIONS

The main elements in this paper offer a proposal for training and performance improvement. While the grounding of the proposal includes several clearly identified theories and concepts, particularly those related to the training component and the template construction component, there is very little evidence to demonstrate that the learning capture and use is effective when it comes to improvements in performance templates and the subsequent implementation of improvements.

There is much presented in the paper that supports the idea that the entire approach could be successful in terms of performance effectiveness. However, the proposal, in its entirety, needs to be tested in the field to determine if all of the components of the approach can be skillfully conducted, effectively implemented, and successfully evaluated. This is the domain of future research. It is important to the author to receive information from SE-INFORMS participants that could be helpful in the creation of empirical analysis of the proposal.

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