April 2007

A Framework for Managing Training Programs to Enhance Organizational Operation Performance

Vichet Sum
Southern Illinois University Carbondale

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Abstract

As training is a powerful means and plays an important role in improving organizational performance and competitiveness, training management deserves more emphasis. Managing training means to plan, implement, and monitor/evaluate training program to support (organization's strategy, goals and objectives) and enhance organizational performance and competitiveness. Therefore, the objective of this study is to propose a framework for managing training to enhance organizational operation performance. Extensive discussions with subject experts who are professors of Human Resource Development and Adult Education as well as members of the American Society for Training and Development-Eastern Idaho Chapter, and personal experiences were used for developing the framework in this study.

Introduction

Background

Facing fierce competition and ever rapidly changing market environments, large corporations must find ways to improve productivity, efficiency, customer service, staff retention and other key drivers of corporate profitability should they want to be more profitable and competitive in the industries. Therefore, the research interest is to focus on the impact of training programs on organizational productivity and performance.

Convergys Corporation has recently conducted a survey with over 300 senior executives in human resource, finance, and operations at U.S. and European companies with revenues of greater than $1 billion. The study showed that 65 percent of corporate executives expressed that in order to gain a competitive advantage in today changing markets, a flexible workforce was required. Nevertheless, those executives said that retaining key talent was quite a challenge due to the extent that the companies did not have the best systems in place to identify skilled employees. They added that fewer training and development programs were being provided to their strategic employees; more training and development programs should be offered to those employees to help them stay current in the industrial and market trends and technological innovation. These factors are the bottlenecks to productivity, efficiency, and organizational performance and competitiveness in general (Convergys, 2004).

Moreover, the study, which involved profound discussions with over 30 senior level training decision makers from the UK's biggest companies, conducted by Digital Subscriber Line (a strategy consulting and market analysis firm based in London) revealed that 95% of the interviewees felt that training was a major strategic priority for their organization.   The same study also found that 80% of large

companies expressed that they were against outsourcing training programs, with a common rational that training is vitally important that they do not prefer outsourcing it (Stout, D., 1995).

A case study of Reynolds and Reynolds, the leading provider of integrated information management solutions to the automotive retailing marketplace, conducted by Emily Hollis in 2002 showed that training drove business success through improving productivity and increasing competitiveness in the marketplace (Hollis, 2002). American Society for Training and Development's 2003 State of the Industry Report statistically proved the correlation between training expenditures both revenues and profitability (ASTD, 2003).

Furthermore, another study, funded by the U.S. Department of Education with the Bureau of Census, determined how training impacts productivity. The results showed that increasing an individual's educational level by 10 percent increases productivity by 8.6 percent; increasing an individual's work hours by 10 percent increases productivity by 6.0 percent; and increasing capital stock by 10 percent increases productivity by 3.2 percent (DOE, 2003). Wright, Knight and Speed (2001) found the following:

Companies that increased their annual training budget grew profits by 11.4% - those that didn't increased profits by only 6.3%. Learning businesses increased turnover by 66% more than those who didn't invest in training - 15% growth, compared to 9%. Three in four (75%) of companies who have seen measurable staff improvements following training also saw profit increases. Nearly all companies (95%) were in favor of training, saying it is essential for success, with three in four (73%) strongly in favor, but just half (51%) have

increased their budget – the key measure that links training strategy to profit making. (p. 3)

The deployment of effective business training for the organizations can increase the chance for organizational success in the long term. Business training emphasizing the basics in market, customer or industry knowledge and product information can be used to leverage success on a small or project scale, which can lead to big returns in the aggregate (Whitney, 2005). Lin and Carley (1997) found "time pressure, training, organizational complexity, and organizational environment are stronger determinants of organizational performance than the match between the organization and its environment."

The Purpose of the Study

The abovementioned results imply that training plays a very important role in improving organizational productivity and performance. Provided that training programs have an impact on organizational performance, management of training programs should deserve more attention in this respect. Training management involves planning, implementing and monitoring training programs to not only provide and equip employees with the essential know-what and know-how to perform their tasks productively and efficiently, but also to enhance organizational productivity and performance. Therefore, effectively managed training programs would improve organizational productivity and performance. Therefore, the purpose of this study is to propose a framework for managing training programs to enhance organizational operation performance.

Significance of this Study

Since training is perceived to play a vital role in enhancing organizational operation performance, which leads to overall organizational performance of and

competitiveness, this study proposes a framework for managing training for the enhancement of organizational performance. The result of this study may be useful for practitioners and academicians alike with respect to managing training programs for organizational operation performance improvement.

Research Questions

Training management deals with the issues of planning, implementing and monitoring training programs to not only provide and equip employees with the essential skills and understanding to perform their tasks productively and efficiently, but also to enhance organizational operation performance. As a result, the following questions needed to be addressed:

1. How can training be planned so that it has a significant impact on organizational improvement enhancement and competitiveness?

2. How can training be implemented to enhance organizational operation performance?

3. How can training impact on organizational operation performance be assessed?

Literature Review

Training Planning

 Organizational needs assessment. An organizational needs assessment is conducted to trigger the level of organizational and/or individual performance (Stout, 1995). Rouda and Kusy (1995) proposed the four steps in conducting a needs assessment namely (1) performing a 'gap' analysis (2) identifying priorities and importance (3) identifying causes of performance problems and/or opportunities (4) identifying possible solutions and growth opportunities.

 The first step is to determine the actual performance of the organization and people against established criteria and standards, or to set new criteria and standards. To assess current situation, the current inventories of skills, knowledge, and abilities of current and/or future employees are to be determined. The examination of the organizational goals, climate, and internal and external constraints should also be included in this step. Identifying the desired or necessary conditions for organizational and personal success is crucial. The purpose of this analysis is to find out the essential job tasks/standards, needed skills and knowledge, and abilities to perform successfully. It is important that the critical tasks necessary, and not just observing the current practices, be identified. The actual needs should be distinguished from the perceived needs and wants. The difference "gap" between the current and the necessary situations will identify the needs, purposes, and objectives.

 The second step is to determine if the identified needs are real and vital in respect to the organizational needs and requirements (Brinkerhoff, 1987). The importance and urgency of those needs must be clearly specified. If some of the

needs are of relatively low importance, other problems with greater impact and greater value would be better addressed first.

The third step is to identify what particular problem areas and opportunities exist (Margolis & Bell, 1989).

The fourth step is to identify possible solutions and growth opportunities; training is the solution when a knowledge or skill problem exists in the organization.

Caffarella (2002) developed the 12-component interactive model of program planning for adult learners. Three of the twelve components are identifying program ideas, sorting and prioritizing ideas, and developing program objectives, appear to be the start of the program planning although the interactive model has no real beginnings or endings. She argued that highly structured needs assessment is not the only way to identify ideas for training programs. Nevertheless, she emphasized on choosing and/or developing a model for conducting the needs assessment that is appropriate to the situation.

Training needs assessment. According to Lowell (2002) training needs assessment (TNA) helps determine what kind of training specific outcomes are required for the whole organization or a specific group of employees, crafts, or responsibilities. Having completed TNA, the findings need to be put into actions; the focus is now on instruction that generates bottom-line performance results. There are five phases for training needs assessment. First of all, preliminary data is collected; it can be done through reviewing past assessments; interviewing cognizant managers, end users, subject matter experts, or internal customers; It is also in this phase that a foundation of how the proposed training relates to business goals is established.

The second step is assessment planning; during this step, what types (maintenance, productivity) and sources of data are to be determined and collected as

well as what type of analysis to perform (comparison of knowledge or skills, attitude toward change). In addition, specific assessment instruments can be developed, and generalized tools can be used in order to minimize development time and reduce expense.

The third step is the actual assessment step where surveys, interviews, background research, and focus groups are conducted. This phase is to determine current knowledge and skill levels, desired knowledge and skill levels, and what training materials are needed.

Fourth step is the data analysis; this is a sorting procedure where data is reviewed for discrepancies or deviation and a qualitative and quantitative response is prepared. Finally, the fifth step is to prepare report -- taking the compiled data and put it together in an acceptable format (Lowell, 2002).

Smith (2004) presented the three aspects of a skills assessment namely written, identify and performance. First, it is to identify in the form of writing of the knowledge required for a specific skill. He suggested that theories, principles, fundamentals, vocabulary, and calculation should be among the skills tested. Secondly, it is to assess knowledge in specific skill areas. He recommended employees be asked to name components and explain their uses in this oral assessment. Thirdly, performing the assessment of critical skills required is conducted. To analyze this aspect, employees carry out typical tasks in accordance with generally accepted work standards.

Financing training costs. Shepherd (1999) incorporated design and development, promotional, administration, faculty (instructor), materials, facilities, student, and evaluation costs in forecasting and measuring training costs. There are three basic kinds of costs or expenses associated with each program offered:

development costs, delivery costs, and evaluation costs. The expense items include staff costs, instructional materials, facilities, food, travel, equipment, special services, promotional materials, and general costs (Laird, 1985).

In training, 90-95% of the total program cost is tied to costs of lost production and travel time. The cost for design, development and the delivery of training is about 7-8% of the total costs (Gilbert, 1988).

Training in profit organization is basically funded by the fund allocated to the training unit. Accurate financial records should be properly kept in a clear, simple and practical manner (Caffarella, 2002).

Program Construction and Development

Developing program objectives. There are diverse opinions among program planners whether program objectives should be stated in behavioral terms, so they can be measured, or whether these objectives can also include outcomes that cannot be expressed in predictable performance (Brookfield, 1986; Mehrens & Lehmann, 1991; Milano & Ullius, 1998; Sork & Caffarella, 1989). There are five major categories of learning outcomes: acquiring new knowledge; enhancing cognitive skills; developing psychomotor skills; strengthening problem-solving and finding capabilities; and changing attitudes, beliefs, values, and/or feelings (Bloom, 1956; Kemp, Morrison, & Ross, 1996; Smith & Ragan, 1999). Furthermore, program objectives (both learning or operational) should be stated clearly enough to indicate what their intentions are (Houle, 1996).

Content development. Selecting the content is a challenge because instructors can rarely include all the material they would like to cover. This limitation exists due to the amount of time, types of delivery systems, backgrounds and experiences of the participants, material availability, and staff capabilities (Alessi & Trollip, 2001).

Smith and Delahaye (1987) provided a framework for moving towards the final content. First, *what-participants-must-know* refers to the content that is essential to the objectives. Secondly, *what-participants-should-know* is the content that supplements the essential material and should be included if time permits. The third one is *what-participants-could-know*; it is the content that is interesting and relevant but not essential for clear understanding.

Moreover, Tracey (1992) cautioned that attention must be paid to avoid leaving out important points and ideas, overemphasizing topics that do not merit extensive attention, and repeating the material presented. The content development is dependent to the participants' knowledge and experience, the nature of the content itself, the required level of achievement, and teaching and learning styles of those involved (Farquharson, 1995; Houle, 1996).

Noticeably, there are three common pitfalls that designers fall into when organizing instruction. They plan too much material for the time allowed, and they want instructors to impart more than learners are motivated to absorb. In addition, they do not take into account the context in which the learning is to be applied (Farquharson, 1995; Milano & Ullius, 1998).

Lessons/Modules development. The 4MAT system, an instructional methodology model which incorporates the instructional plan development, instructional technologies selection, and instructional materials selection and focuses on the natural learning cycle to enhance student success, explains learning in terms of the ways that people perceive and process information. A natural cycle for delivering instruction engages the learners, provides relevant information, provides an opportunity for practice, and allows for creative adaptation of material learned. 4MAT

offers trainers/teachers a systematic approach to train/teach all participants/students to

think and learn well (McCarthy, 1987).

     Trainer/Instructor selection. Managers and supervisors are usually selected to

be the trainers for in-house training programs; therefore, they should be aware of

training techniques and able to develop goals and objectives for their training. More

importantly, they must be able to interact with adults and know how adults learn. To

equip managers and supervisors with such knowledge and skills, companies and

organizations can sign them up for training and development courses. Nonetheless, it

is very questionable that those managers and supervisors can effective train compared

to outside professional trainers. The actual instruction has a significant impact on the

success or failure of a training program. Provided that internal personnel are selected

to be the trainers, careful attention should be paid to training knowledge and skills

possessed by those who are supposed to train others.

     However, if a trainer/instructor is to be outsourced, the advantage is that the

trainer/instructor is very well equipped with knowledge, skills and experience in

training. The shortcoming of outsourcing the trainer/instructor is that he/she may lack

solid knowledge concerning the organization's product and/or service, operational

processes, and expectation although the trainer/instructor may gain such knowledge

by studying the organization's nature. Moreover, the cost for obtaining an outsider to

train is usually high.

     Nine selection criteria for obtaining a trainer/instructor, proved to be helpful,

are content knowledge, competence in the process of instruction, ability to respond

effectively to the background and experience of the participants, belief that caring for

learners, credibility, enthusiasm and commitment, personal effectiveness, enterprise

knowledge, and the ability to teach from the heart and spirit as well as mind (Apps, 1996; English & Gillen, 2000; Palmer, 1998; Philips, 1997; Pratt & Associates, 1998).

Should external consultants be selected, some guidelines and questions to judge their quality and performance are caliber and beliefs of the people, quality of their resources, problem-solving capabilities, adaptability, scope and depth of available resources, context knowledge and cost (Mitchell, 1998; Munson 1992; Parry, 1996).

Designing training evaluation tools. Training and development activities can be evaluated before, during and after the activities. In acknowledging the importance of both systematic and informal evaluation, evaluation becomes a continuous process that begins in the initial planning phase and continues throughout the life of the program (Birkenholz, 1999; Guskey, 2000; Sork, 2000; Tracey, 1992; Vella & Burrow, 1998). Evaluation done to improve or change a program while it is in the progress is termed formative evaluation. When evaluation focuses on the results or outcomes of a program, it is called summative evaluation. There are various approaches in program evaluation -- objective-based reviews, systems assessments, case studies, quasi-legal studies and report, professional/expert reviews, Kirkpatrick's four levels model and Phillips 5-levels model. For instance, the "levels of evaluation" approach measures participant reactions, participant learning, behavior change or use of new knowledge and skills, and results or outcomes based on written questionnaires, tests, performance reviews, focus groups, cost-benefit analysis (Guskey, 2000; Kirkpatrick, 1998).

Phillips (1991) added another level to the Kirkpatrick four-level evaluation by dividing the 4th level into two parts namely results and return on investment (ROI).

Vella and Burrow (1998) presented the four types of evaluation --
skills/knowledge/attitudes (SKAs) and achievement or broad objectives; education
process elements (learning, tasks, and materials); (3) anticipated changes (learning,
transfer, and impact), and evidence of change (context, process, qualitative, and
quantitative) -- based on observations, tests, interviews, review of program materials
and transfer plans, product reviews, computer simulations and focus groups.

Training Implementation

Training coordination. Having planned the training program properly, it is
now to administer the training. It is important to make sure the goals are being met;
attentive attention to the operational details of location, facilities, accessibility,
comfort, equipment, and timing will contribute to the success of the training program.
When all program arrangements are confirmed, thought should be given to how the
program is opened, monitored, and concluded. One person may be responsible for all
these tasks or a number of people may be involved (Caffarella, 2002). Coordination
activities include: meeting rooms, meals, refreshment breaks, social functions,
accommodation, ADA requirements, instructors and program staff, equipment,
materials, transportation, program schedule, on-site registration, and message and
information center (Conner & Waldrop, 1994; Hartwig, 2000; Lawson, 1998;
Munson, 1992; Nadler & Nadler, 1987).

Training program delivery. Concerning the teaching and learning
environment, the physical environment in which education and training activities take
place effects participants' learning (Finkel, 1996; Hartwig, 2000; Hiemstra, 1991;
Russell, 1999). A learning environment is defined by Finkel (1996) as "the quality of
every detail in the environment within which your programs are held and how they
contribute to attendee learning" (p.982).

There are five types of facilities commonly used for education and training activities: in-house organizational facilities, hotel and motel facilities, conference and retreat centers, college and university facilities, and resort areas. Each type of facility has its advantages and disadvantages, depending on the objectives of the activity, the instructional techniques to be used, the participants, the program presenters and facilitators, the cost, the accessibility, and the type of services the facility providers (Munson, 1992; Nadler & Nadler, 1987). In respect of instructor and participants' interaction, participants/students who interacted regularly with their instructor and with other participants/students were more motivated and had better learning experiences (Garrison, 1990). Communicative interactions can be used to engage learners, to cause them to reflect on and to articulate ideas. Interactions encourage and facilitate cognition and play an important part in promoting learners' intellectual operations and thinking processes (Oliver & McLoughlin, 1997).

Moreover, participants' motivation and commitment is vital. As one of the most aspects of instructional strategy, motivation is the most critical element needed for employee-learners. A very well designed training program will fail if the participants are not motivated to learn; absence of a desire to learn on the part of the participants makes retention unlikely. Designers must do their best to create a deeper motivation in participants for them to acquire new skills and transfer those skills back into the work environment (Kruse, 2004).

As a first step, instructional designers should not assume they understand the target audience's motivation. Prospective learners/participants should be asked these questions: What would the value be to you from this type of program?; what do you hope to get out of this program?; what are your interests in this topic?; what are you most pressing problems? The responses to these types of questions will provide

insight into learner/participant's motivation, as well as desirable behavioral outcomes. Consequently, Keller (1987) synthesized existing research on psychological motivation and created the ARCS model. The ARCS stands for Attention, Relevance, Confidence, and Satisfaction.

Training Monitoring and Evaluation

Training session(s) assessment. Participants' reaction evaluation should always be conducted at the end of each training session. Measuring reaction is important for several reasons. First of all, it provides valuable feedback that helps us to evaluate the program as well as comments and suggestions for improving future programs. Secondly, measuring reaction informs trainees that the trainers are there to help them do their job better and that they need feedback to determine how effective they are. Third, reaction offers quantitative data that can be submitted to managers and others involved in the program. Finally, reaction sheets can provide trainers with quantitative information that can be used to establish standard of performance for future training program (Kirkpatrick, 1994).

Participants' skills, knowledge and attitudes assessment. Learning can be defined as the extent to which participants change attitudes, improve knowledge, and/or increase skills as a result of attending training. A paper-and-pencil test can be used to measure the increased knowledge and/or change attitudes. A performance test can be conducted to evaluate the increase in skills (Kirkpatrick, 1994).

Participants' task performance assessment. Participants' task performance assessment should be conducted periodically after training already took place to allow enough room for the participants to apply what they have been trained to perform their task (Kirkpatrick, 1994). Kirkpatrick commented that the participants must have a desire to change, know what to do and how to do the tasks, work in the right

climate, and be rewarded for the changing. To assess participants' task performance, Kirkpatrick's level-3 evaluation is practically applicable.

   Assessing training impact on business results. Improving efficiency in business processes means achieving the same results with lower costs. For instance, after training, it takes less time to set up the machine. Improving effectiveness in business processes means achieving better results with the same costs. For example, customer satisfaction increases after providing customer-oriented orientation training to sales representatives and frontline employees.   It is possible to get better results with lower costs, and this is called improved productivity of business processes (Phillips, 1991). Kirkpatrick's level-4 evaluation measures the success of the program in terms that managers and executives can understand increased production, improved customer satisfaction, improved quality, decreased costs, reduced frequency of accidents, increased sales, and even higher profits or return on investment. From a business and organizational perspective, this is the overall reason for a training program, yet Kirkpatrick suggested that determining results in financial terms is difficult to measure, and is hard to link directly with training (Kirkpatrick, 1994).

   Assessing training return on investment (ROI). In order to calculate ROI, evaluation experts such as like Jack Phillips recommended the addition of a fifth level to Kirkpatrick's model for some programs. This requires collecting Kirkpatrick's level-4 data, converting the results to monetary values, and then comparing those results with the cost of the training program (Phillips, 1991). Phillips proposed the following formula for evaluating return on investment:

ROI (%) = Benefits/Program Costs * 100.

Methodology

A review of the relevant literature, extensive discussions with subject experts who are professors of Human Resource Development and Adult Education as well as members of the American Society for Training and Development-Eastern Idaho Chapter, and personal experiences were used for developing this framework. Figure 1.1 shows the systematic framework for managing training programs.

Figure 1.1 A Systematic Framework for Managing Training Programs

Training Planning and Development

- Organizational Needs Assessment
- Training Needs Assessment
- Financing Training Costs
- Training Program Construction and Development
  - Developing Training Program Objectives
  - Content Development
  - Lessons/Modules Development
    - Instructional Plan Development
    - Instructional Technologies Selection
    - Instructional Materials Selection
  - Trainer/Instructor Selection
  - Developing Evaluation Tools

Training Implementation

- Training Coordination*
- Training Program Delivery
  - Teaching and Learning Environment
  - Instructor and Participants' Interaction
  - Participants' Commitment and Motivation

Training Evaluation

- Training Session (s) Assessment
- Participants' Skills, Knowledge and Attitude Assessment
- Participants' Task Performance Assessment**
- Assessing Training Impact on Business Results**
- Assessing Training Return on Investment**

Note. * Coordination activities include: meeting rooms, meals, refreshment breaks, social functions, accommodation, ADA requirements, equipment, materials, transportation, program schedule, on-site registration, and message and information center etc. ** The assessment should be conducted at a later date (e.g. 3 or 6 months later) to allow enough time for changes to occur.

Conclusion

Managing training means to plan, implement, and monitor/evaluate training program to support (organization's strategy, goals and objectives) and enhance organizational performance and competitiveness. Therefore, a training program management is judged to be effective given that it is planned, implemented/evaluated to support and enhance organizational operation performance.

The majority of subject experts, who are professors of Human Resource Development and Adult Education as well as members of the American Society for Training and Development-Eastern Idaho Chapter, agreed that only large corporations have the [physical, human, and financial] resources to adopt the proposed systematic framework for managing training programs. Furthermore, the subject experts also consented that although large corporations could afford to apply the framework, there are still reluctances when it comes to training evaluation. Nonetheless, the subject experts are optimistic that top management of large corporations will realize the value of training evaluation and put extra organizational efforts in evaluating training programs from training participants' reactions to return on training investment.

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