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ASSESSMENT OF THE EFFECTIVENESS OF DEVELOPMENT ACTIVITIES

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The amount of investment dedicated toward training and development is remarkable. According to the American Society for Training and Development (ASTD), U.S. businesses spent $171.5 billion on learning activities in 2010 (Market Watch, 2012). With such a large price tag comes well-deserved scrutiny. Human resource professionals will adamantly declare the importance and need for training and development activities, yet few actually measure any type of return on investment (ROI). This disconnect may be attributed to a number of different possibilities, but whatever the reason, HR professionals need to be able to identify the measurable impact that these development activities have on business performance.

In order for HR to remain -- or in some cases become -- a strategic partner, professionals in the field must be able to provide general managers with tangible proof that their development efforts impact business performance. In organizations that continue to fund development of management, it is critical for business leaders to know that the resources being dedicated are actually producing desired results. The assertion of importance in linking management development activities to business performance leads to the question: Can the outcomes of management development be assessed at the department or organizational level? If so, what metrics are most relevant?

In order to frame the issue properly, this paper will first focus human capital theory. Following will be a dissection of the research regarding management development programs and the evaluation of training and development. This paper will present the widely utilized model for evaluating training developed by Donald Kirkpatrick. Kirkpatrick's model of evaluating training effectiveness contains four "steps" which represent different levels of criteria to measure: reaction, knowledge, behavior and results (Kirkpatrick, 1960). This paper will focus more extensively on the third and fourth criteria of the model, which assess actual changes in job-related behavior and measuring improvements in organizational results. The fourth criteria being the focal point of this research as it pertains to assessing the impact of a training activity at the departmental or organizational level.

HUMAN CAPITAL

Organizations have certain kinds of assets or capital that can add value to business operations. A business's assets or capital can be categorized into five groupings that include financial, physical, market, operational, and human capital or assets. Human capital refers to an employee's knowledge, skills, competencies, education level, work habits and their work relationships (Mello, 2006). With an employee's knowledge, skills and abilities representing such an important asset to an organization, it would only be beneficial to further invest in developing those competencies. Approaching the measurement of employees' contributions to organizational or departmental outcomes requires that people be viewed as assets rather than expenses.

Researchers and field professionals widely recognize that the people in an organization are a major source of a competitive advantage (Barney, 1991; Lundy, 1994). The level that employees impact the business's competitive advantage is dependent upon how the business strategy links individuals to organizational outcomes. One study suggests that, "the link between business strategy and individual performance occurs in part through the organizational capability to create and embed people processes along a number of dimensions: vertical, horizontal and temporal linkages"

(Gratton, Haley, Stiles & Truss, 1999: 21). Providing that there is a link between individual performance and business outcomes suggests that developing employees will further enhance necessary knowledge, skills and abilities that will impact the organization. A company's human resource strategy should, theoretically then, link individual behavior and organizational outcomes through the competitive strategy.

HR Strategy and Competitive Advantage

An HR strategy that links individual behavior with organizational outcomes through competitive strategy is worth exploring. "From the perspective of the firm, human capital will have the greatest value when those benefits take the form of workforce behaviors that execute strategy" (Huselid, Becker & Beatty, 2005: 12) Before one can analyze the impact that a development program has on organizational outcomes, it is an inherent prerequisite that the organization understand and identify the employee skills that play a key role in a business operating successfully (Huselid et al., 2005). Being aware of the required skills should ultimately guide the design of a development activity. The key to development activities is that they are linked to the overall business strategy and competitive advantage. "Impact in this case means demonstrating a link between what HR does and tangible effects on the organization's ability to gain and sustain competitive advantage" (Lawler, Levenson & Boudreau 2004: 29).

The proper metrics are needed not just to measure organizational impact of training and development activities, but also to measure the success of an organization's workforce strategy (Huselid et al., 2005).

ALIGNING DEVELOPMENT ACTIVITIES WITH

COMPETITIVE ADVANTAGE

Management Development Activities

Companies have many different methods for carrying out training and development activities. Organizations use management development programs as a means to target and further develop high potential employees. The most common reason for utilizing any type of management development is to directly improve how a manager functions and consequently improve organizational performance (Lees, 1992). Some of the deemed "learnable" "measurable" managerial skills include problem solving, analyzing, coaching, leading and goal setting (Becker 1977, adopted form Kirkpatrick, 1994). A major issue with assessing management development comes as a result of the term encompassing various meanings. "Management development is an ambiguous concept, attracting multiple and often conflicting definitions, and conveying different things to different people both in the literature and in organizations" (Lees, 1992: 89). When it comes to assessing these activities, it would be critical that desired results are part of the planning stage and with that, ensuring that a development activity is designed with the desired result in mind. "The outcomes by which it might be measured are equally ambiguous, with different stakeholders having different expectations and likely to select very diverse sets of criteria for assessment" (Lees, 1992: 89).

Linking Management Development to

Competitive Advantage

While an organization's workforce as a whole can sustain competitive advantage, it is a core responsibility of managers to ensure that their employees are executing the behaviors indicative of the competitive strategy. In order for organizations to remain competitive among their respective markets, it is essential that business leaders are able to drive the business unit based on the competitive strategy.

MEASURING PROGRAM EFFECTIVENESS AND BUSINESS IMPACT

The Dilemma

Human Resource professionals commonly settle for measuring what is easy to quantify rather than what truly matters (Huselid, Becker & Beaty, 2005). All too often organizations measure the activity enrollment, the length of a training program, participants' reactions or the cost of the training program, rather than outcomes. Business leaders and HR professionals intuitively feel that training and development are necessary concluding that it should impact bottom-line metrics like productivity, quality and cost reductions, while possibly enhancing morale (Phillips, 1997). While attempts have been made to quantify the true business impact of development activities, there are several issues that arise in this analysis. "Second business outcome can often be attributed to HRD programs plus many other concurrently intervening variables. "However, the current ROI approach fails to separate true HRD program impact from other intervening variables" (Wang, Dou & Li, 2002: 210). This problem of separating the contributing variables is the result of trying to quantify items that might be seemingly intangible items.

The measurement is further complicated when attempting to assess the impact of management development activities for a number of reasons. Management-focused development is designed to make individuals better at leading and managing others that have a direct impact on the organization. For example, if a person managed a sales force, the goal would be to make that person better at managing a sales force that will ultimately increase the amount of sales. The degree of separation between impact to organization and the development activity creates a barrier to measurement. "These considerations pose massive problems if evaluation of any management development activity is attempted, not least because one can never be sure which rationale, or combination of rationales, might be

contributing to detected changes in job performance" (Lees, 1992: 103). Timing poses a significant barrier for measuring results of a management development activity. While some training might be designed to have an immediate impact, management development is theoretically aimed at future outcomes. Therefore, any measurement of organizational results would have to allow an undetermined amount of time to pass before concluding that the activity did or did not have an impact. It is also important to note that attempting to measure the impact of management development activities has inherent limitations that need to be considered. The measurement needs to be limited to assessing the level of impact on a variable such as productivity at the departmental or organizational level. Due to external variables like the economic climate, it is likely impossible to measure impact of a single intervention on an organization if one is looking at just profits. "Likewise, it is difficult if not impossible to measure the final results for programs on such topics as leadership, communication, motivation, time management, empowerment, decision making or managing change" (Kirkpatrick, 1994: 26). Although his model is the most widely utilized for evaluating training and development programs, Kirkpatrick himself recognizes the dilemma in measuring results or outcomes.

Kirkpatrick's Model

Kirkpatrick's model (1960, 1979, 1994) features four methods for evaluating a training and development program. The methods include 1) reaction, 2) knowledge, 3) behavior and 4) results. The reaction method is the most basic level of evaluation. This measures if the participants trained actually like the training. While it may be informative to measure the participant's reaction and knowledge gained from training, it does not fully capture any metrics related to outcomes. Businesses widely utilize the reaction method and by doing so only measure the most basic level for evaluating training.

Reaction Metrics. Evaluating reaction measures the participant's feelings toward a

particular trainer and training that was provided. Measuring the participant's reaction to a program is important for a number of reasons. If participants do not feel favorably about a program, then they will not care for the information that was delivered through the training. "People must like a training program to obtain maximum benefit from it" (Kirkpatrick, 1960: 81). In addition, participants will likely share their unfavorable reactions with other employees and influence others opinions of the training activity (Kirkpatrick and Kirkpatick, 2006). If participants see no value in a program, it is safe to assume that the information from that program was not seen as valuable and therefore the remaining phases would not be impacted. Kirkpatrick (1960) suggests that the best way to evaluate reaction is to use a form that allows responses to be tabulated and quantified while giving participants a portion to write comments. Alliger, Tannenbaum, Bennett Traver and Shotland (1997) conducted a meta-analysis of training criteria using Kirkpatrick's model as a framework and suggested that reaction measurements can be broken down into two components; affective and utility reactions. Affective reaction measurements assess whether a participants liked a training program. Utility reaction measurements attempt to assess if a participant felt the training program was applicable to job performance (Alliger et. al., 1997). Other researchers (Warr & Bunce, 1995) have expressed necessity in including a third component that seeks to measure participant's perception of training difficulty. However, Alliger et al. (1997) found that training difficulty was not included on the majority of reaction measurements they studied.

Knowledge Metrics. Kirkpatrick's second criteria for assessing training is "learning" and it is defined as "the extent to which participants change attitudes, improve knowledge, and/or increase skill as a result of attending the program" (Kirkpatrick, 1994: 22). The most common form of assessing learning is done through traditional multiple-choice tests administered immediately following a training activity (Alliger et al., 1997).

Training administrators might attempt to measure the retention of knowledge by testing participants at any point other than immediately after the training activity (Alliger et al., 1997). Another method for measuring learning is to provide instances for behavioral skill demonstration. As noted by Alliger et al. (1997), in order to separate this assessment from Kirkpatrick's third criteria (behavioral change), such demonstration would be assessed during the training or immediately following. A few suggested methods for assessing knowledge through behavior could be done by using role playing, simulations, or structuring the training to be performance centered and then score participant's accordingly (Alliger et al., 1997). The different evaluations assess a participant's ability to either answer questions pertaining to the content or perform based on the information that was reviewed. This stage in Kirkpatrick's model is important if one considers the model to be hierarchical in nature. A participant must obtain knowledge and be able to apply that knowledge in order for a change in behavior to occur.

Behavioral Metrics. A training program can be evaluated based upon the extent that behavior is changed or impacted due to a participant attending a training activity (Kirkpatrick, 1994). The assessment of behavioral change measures whether knowledge from a training activity is being transferred to actual job performance. A measurement should be based upon an aspect of job performance that is actually measurable. "Sometimes ratings were used to indicate on-the-job performance; work samples, work outputs and outcomes were also reported (Alliger et al., 1997). Kirkpatrick (1994) further explains that a change in behavior is dependent upon four conditions. First, an individual must have a desire to change. Second, the individual must know what it requires and how to change behavior. Third, the work climate must support the desired change. Finally, the person needs to be rewarded for the change. The transtheoretical model (TTM) (Velicer, Prochaska, Fava, Norman, & Redding, 1998) is based upon similar conditions. The TTM was developed as a theoretical model to explain

the stages that an individual goes through when deciding to change a behavior. The five stages of change include; pre-contemplation, contemplation, preparation, action and maintenance. In the first stage, pre-contemplation, a person is not planning to change behavior; which could be due to not knowing that there is a problem or not having enough information to change. In contemplation, the individual is intending to make a change in the near future while continually weighing the costs and benefits of the change. The preparation stage is categorized as a person that is intending to take action towards change and have a plan to do so. In the action stage an observable change in behavior has occurred. The final stage is maintenance and occurs once the individual is working to sustain the changed behavior. While this model was developed for health related behaviors, it can easily be translated to any behavior change including that resulting from training and development. It does not so much provide metrics as it presents an understanding that a change in behavior occurs based upon what stage an individual is at. This is critical in the design and selection stages of a development program. Based upon the transtheoretical model, a participant cannot be expected to see a change in behavior as necessary if they do not see a reason to change or want to change.

Behavioral change metrics are used to assess what an individual does on the job after participating in a development activity or program. The measurement of the impact to behavior is generally done through performance appraisal, survey of participant's subordinates, supervisor or any other person that has the ability to view changes in behavior (Kirkpatrick, 1994). A study by the University of Wisconsin sought to measure changes in behavior from a training program for developing supervisory skills (Kirkpatrick, 1994). The participants of the program were each interviewed about resulting changes in behavior between two and three months following completion of the program. The researchers also interviewed the participants' supervisor to potentially verify any changes in

behavior. Ideally, one attempting to measure change in behavior would want to have a baseline interview or survey from before entering the program. The interview questions directed at both the participant and the supervisor first covers overall changes in behavior and then focused on the main topics of the training. The changes in behavior were related to the training and included the following areas; giving orders, training, making decisions, initiating change, appraising employee performance, preventing and handling grievances, attitude towards job, attitude towards subordinates and attitude toward management (Kirkpatrick, 1994: 163). Each area covered in the questionnaire features questions with specific behaviors. In an example from the "initiating change" section participants are asked "Since the program, is the participant doing more in the way of informing employees of impending change and reasons for it?" (Kirkpatrick, 1994: 171). Both the participant and their supervisor would answer the question on a six-item scale that includes: "much more," "somewhat more," "no change," "somewhat less", "much less" and "don't know." The researchers found the results from both the participants and the supervisors to be consistently positive; providing a framework for assessing changes in behavior. The behavioral metrics used to measure need to be directly tied to the training program, which should be directly connected to strategic business objectives. An important component to measuring changes in behavior is to allow time for the participant to demonstrate the newly acquired knowledge and skills before soliciting input from participants' supervisor, subordinates or self. Assessing behavior change is critical because a change in behavior is necessary if there is to be a change in an employee's performance (Mello, 2006).

Leadership Style Change. When it comes to changing behavior, a management development program accomplishes this by changing participant's leadership style. A leadership style is a consistent behavioral pattern of how a leader interacts with their subordinates in various situations (Nayak & Mishra, 2005). First, one must

analyze the development program's impact on the participant's leadership style. If style did change, the next level is to analyze if the participant's subordinates behavior changes or is impacted. Prior to an impact on subordinate behavior, the subordinate would have to be satisfied with the "new" leadership style. There would likely be no change in employee behavior if the employees view their leaders' style negatively or unfavorably. Unfortunately for practitioners, subordinates behavior is impacted by more than just their manager's leadership style. If the subordinate's behavior is assessed to have been impacted, the next step would be to look at departmental outcomes.

Failing to assess the effectiveness of a program beyond reaction and learning measurements would severely limit any possibility of sustained behavior change. An integral part to changing behavior is ensuring that feedback is provided to an individual when the new behavior is displayed. Without assessing program results, providing feedback is quite difficult (Scholl & Brownell, 1983). As many models on behavioral change have outlined (Velicer, Prochaska, Fava, Norman, & Redding, 1998; Kirkpatrick, 1994; Scholl & Brownell, 1983), there are various conditions that must be met in order for behavior to change. The individual needs to recognize that there is a reason to change their behavior and believe that the solution provided by the development program will lead to the right outcomes. Once the individual changes their behavior, there needs to be feedback if performance is improving. Without that feedback, the individual might not recognize that their performance has improved and become more susceptible to revert back to old behaviors that are more comfortable.

Results Metrics. While assessing results is one of the criteria of Kirkpatrick's model, it is by far the most vague of all the criteria. Kirkpatrick (1994) provides guidelines for evaluating results that include; using a control group, allowing time for results to be achieved, evaluating before and after the program is administered and most importantly to be satisfied with evidence if proof is not possible. Kirkpatrick provides a similar set of guidelines for evaluating changes in behavior. The Learning Effectiveness Measurement (LEM) developed by IBM, was intended to improve upon the weak system by which learning activities were being measured. The methodology behind the development of the LEM was guided by the understanding that the outcome being measured is the outcome that will be produced. The concept was meant to be better aligning with business results. It presents a five-phase measurement including predictive measurement, baseline measurement, formative, in-process measurement and retrospective management (Spitzer, 2005). Unfortunately the model design is just another guideline of when to measure rather than what should be measured.

Kirkpatrick (1994) suggests that final results at the management level can only be measured in terms of improved moral and non-financial terms. Other researchers have provided more applicable potential metrics. "Operational effectiveness impact metrics might focus on changes in the performance of business processes (e.g., reduced defects, increased speed, more frequent innovations) that occur when the quality of talent is improved or when new HR practices are introduced" (Lawler, Levenson & Boudreau, 2004: 29). The ability for HR professionals to show that development activities impact business outcomes is dependent upon the right metrics being used. Metrics need to be connected to measures of company performance (Lawler et al., 2004). Another way to measure performance is done through the use of key performance indicators. "Key performance indicators (also known as KPIs) are defined as quantifiable, specific measures of an organization's performance in certain areas of its business. The purpose of KPIs is to provide the company with quantifiable measurements of what is determined to be important to the organization's critical success factors and long-term business goals. Once uncovered and properly analyzed, KPIs can be used to understand and improve organizational performance and overall success" (Lockwood, 2006: 29).

"Impact on productivity, efficiency, quality, customer service or any other means the organization uses to measure contributions and performance of employees. This can be assessed by budget and cost reports, sales figures, production, customer surveys, or any other means that correspond to the organization's performance measures" (Mello, 2006: 411). Additional measures of impact on results can be seen by, analyzing the change in accidents, quality, morale, turnover, costs and profits (Mello, 2006). Adding to the barrier of assessing impact on results is the fact that results are not immediately identifiable. "A direct approach to evaluation is suited to measuring training results in industrial or goods producing and supplying organizations (by monitoring sales or production performance figures before and after training). However, the direct approach breaks down when applied to service operations in which the input is heterogeneous and uneven, the product is intangible, and the assignment of dollar value to the product is difficult" (Bell & Kerr 1987: 72). Further complicating measurement is the various internal and external variables that impact departmental level outcomes besides the employees. Effectiveness measurement taken one step further would attempt to assess the final organizational impact of the management development program. One might want to look at the change in organizational profits as a result of the development activity. Yet the issue again becomes the various internal and external factors that influence organizational profits. Figure 1 below shows the connection between the output of development activity and the input into an overall production system.

FIGURE 1
A System View of HRD Interventions and Potential Impact

Source: Wang et al, 2002: 212
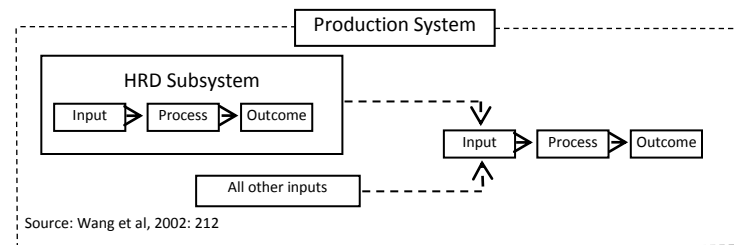
The figure depicts clearly the separation between training outputs and the eventual outputs of the department or organization that is problematic to measurement. The outputs of a training activity meet many other variables as it enters into an organizations system. A company does not operate in a vacuum and therefore is subject to a wide array of variables including the outputs of a management development activity. The next segment will review a return on investment (ROI) approach to evaluation.

RETURN ON INVESTMENT APPROACH

While Kirkpatrick's model is likely the most widely utilized model for evaluating training and development, it offers little in terms of quantifying outcomes. Many researchers (Allinger & Janak, 1989: Bobko and Russell, 1991; Holton, 1996; Wang, Dou and Li 2002) suggest that Kirkpatrick's model is more like a classification scheme that created a common descriptive language for practitioners. "Perhaps the greatest contribution of the model, as well as the reason it gained popularity in the HRD community, lies in the fact that it created a common vocabulary for HRD practitioners to communicate their evaluation efforts" (Wang et.al., 2002: 208). Another approach to evaluating development activities embraces a more accounting based model in return on investment (ROI). Using ROI measurements in the human resource field is more complicated than accounting due to the

human factors involved. An accurate assessment of returns requires the benefits from a single development activity be separated from impacting variables (Wang et. al. 2002). A study by Wang, Dou and Li (2002) explored theories and methodologies for measuring ROI in the fields of economics, industrial organizational psychology and human resource development (HRD). The study first defines ROI in the HRD field as, "any economic returns, monetary or non-monetary, that are accrued through investing in the HRD interventions" (Wang et al., 2002: 212). The main issue with an ROI calculation is that it requires that a development program benefit metric be available to plug into the equation. The ROI approach has a similar issue the other models encounter because there is really no method for separating the benefits from and those that would have occurred otherwise. The next section will present two cases where different organizations have attempted to assess the impact of management development at various levels but more importantly in regards to behavioral change and results.

MEASUREMENT IN PRACTICE

Pollack and Wick (2004) looked at different organizations and how they attempted to evaluate the impact that training and development had in terms of business results. One example presented a "successful" leadership development program by Hewlett Packard. The goals of this program were to resolve issues that many leaders in the organization had identified which include, slow decision-making, lack of alignment and lack of shared purpose (2004). Three months following the training, participants were surveyed asking how often they used information from the training in a valuable way for HP. The participants were also asked to identify specific incident where real benefits were produced using knowledge gained from the training. Some of the responses from participants alleged that they were able to save a certain number of days or time because they utilized principles outlined in the development activity. HP determined that the ROI of the program was

15 times the cost of administration. The following illustrates how the company determined ROI based on the responses participants provided. "Hours saved were converted to dollars using the fully loaded cost of employees at that level supplied by HP's finance department…using the median value of the reported incidents *times* the frequency with which they were reported, minus the fully loaded cost of the program (including the time away from the person's regular work)" (Wick & Pollack, 2004: 47-48). While this case represents one way an organization can demonstrate the benefit of management development to business leaders, it is a much-less-than-scientific method. The results of the program are determined based upon the participants inferring certain benefits. The method does serve a potential purpose to business leaders that might naturally prefer accounting equations. The ROI equation would appear to the right leaders that the benefits of the program are tangible hard numbers, even if it lacks true substance.

Kirkpatrick (1994) presented a number of case studies in which companies had implemented the four levels for evaluating a training program. One of the cases presented a management development program developed by CIGNA. The company sought out to prove that their management training could be linked to improved productivity in the workplace. The designers of the program recognized the training amounts to results through various levels of impact. "The linkage between training and workplace results takes place through a chain reaction along the levels of impact" (Kirkpatrick, 1994, presenting Cigna case: 193). The levels of impact relate to the four levels of evaluation therefore the organization wanted to evaluate at each level. The first level (reaction) wanted assess if participant's felt the training was effective and job-related. The participant's were asked to rate the training content throughout the training and then three months following. The second level of impact (learning) was assessed through the use of a program evaluation. The evaluation was given at the end of training and intended to assess

whether the individual acquired knowledge from the training. The next level sought to evaluate if the training brought about a change in participant's behavior. With it being a management development program, the trainee's direct reports were surveyed as a means of assessing the potential change in behavior. The subordinates were surveyed on certain content areas including, "planning, leadership, motivation, performance management discussions, setting clear performance standards, and work unit's communication environment" (Kirkpatrick, 1994, pp. 194). The survey consisted of thirty-six items that had the subordinate scale their opinion from 1 to 5 with 1 being the most positive and 5 being the most negative. The survey was provided to the trainee's direct reports before training and again three months following the completion of training. The final level of evaluation aimed to assess results by analyzing measures of work-unit performance and then relating those measures to productivity. The work unit performance measures were collected both three months before the training took place and three months after. The designers of this organization's development program held that the intended output is improved productivity at the work unit level. The training was structured around productivity and the measurement productivity. Trainees are taught how to create productivity measures, create productivity action plans and are taught how to use the productivity data when providing feedback on employee performance.

SUMMARY OF FINDINGS

The available research on evaluating training and development programs is quite extensive. While researchers and HR professionals understand the importance of developing metrics to accurately assess training programs, they generally fall short when it comes to demonstrating information that business leaders desire. Practitioners opt for basic level measurements that assess participants' reactions and learning. The reaction and learning level assessments are critical to the other levels of evaluation but do not indicate the true benefit or

value of a development program. Nearly every article that references evaluating training programs uses at least a reaction assessment. "Only 3% of all training courses are evaluated for business impact, whereas 88.9% are measured by happiness indexes" (ASTD, 1995 adopted from Spitzer, 1999). Unfortunately, assessing participants' reaction to a training program is the lowest lying fruit available to practitioners.

An organizations strategy for administering a development activity ensures a better transfer of knowledge if program activities are closely related to what occurs on-the-job. "Transfer refers to the degree of continuity between learning in training, and requirements of the job. The overlap assures that the knowledge, abstract concepts, attitudes, or behaviors acquired through T&D match the strategic business needs" (Olian, Durham, Kristof, Brown & Pierce; featured in Mello, 2006: 427). The degree of transfer is directly related to the potential change in a participant's behavior. For example, a training program that features activities that are similar to situations experienced on-the-job, then participant can more easily transfer learned knowledge to the job after completing the program. Transfer of knowledge is important because it is necessary for a change in behavior to occur. Management development programs that require participants to complete job assignment rotations are therefore better designed for knowledge transfer.

RECOMMENDATIONS

So if human resource practitioners do not have the ability to separate the impact of a management development activity from the impact of other simultaneous variables, or to simply accurately assess organizational level effectiveness, then what can or should be measured? This author recommends incorporating the various levels of Kirkpatrick's model but to put effort in the behavioral change aspect of the assessment. A management development program needs to be viewed positively by the participants if it is to influence any of the other levels. Training practitioners

should create and administer a participant survey that assesses opinions regarding the program and its content. A reaction survey should be given directly following the completion of the program. Practitioners should also administer a program evaluation that attempts to measure the level of knowledge that each participant has acquired. The purpose of such an evaluation demonstrates whether the participant has absorbed the content of the development program. As has been stated earlier, a participant's score on a program evaluation does not directly equate to on-the-job performance, but one cannot expect behavior to change if the knowledge was not acquired. Assessing behavioral change in terms of a change in leadership style is the closest method practitioners have at their disposal to measuring organizational level results of development programs. "Change in behavior is not an end in itself. Rather, it is a means to an end…if no change in behavior occurs than no improved results can occur" (Kirkpatrick, 1994: 60-61). Measuring at the behavioral level is still widely underutilized and would likely serve as a major improvement of development program measurement for the majority of organizations that provide these programs.

CONCLUSIONS

Although the idea of evaluating training in terms of results has been researched for nearly half a century, there is still no definitive method or metrics that attribute outputs of training program to outputs of an organization. There are inherent inconsistencies with top managers attempting to justify training and development programs by looking for evidence of impact at the organizational level. Justifying a training program based on the impact it has on organizational results is problematic for several reason. First and foremost, are the several intervening variables present from the onset of a development activity all the way up until an organizational impact might be seen. Another major issue with results measurement is the inherent time lag. Development programs generally have no definable time frame for when organizational impact can be expected. Once a participant completes a development program, determining how long it will take that individual to apply content, change behavior, influence employees, impact department and eventually impact organization is extremely difficult. The process of how a development program could connect to organizational outcomes is depicted in Figure 2.

FIGURE 2
Program Development and Organizational Outcomes
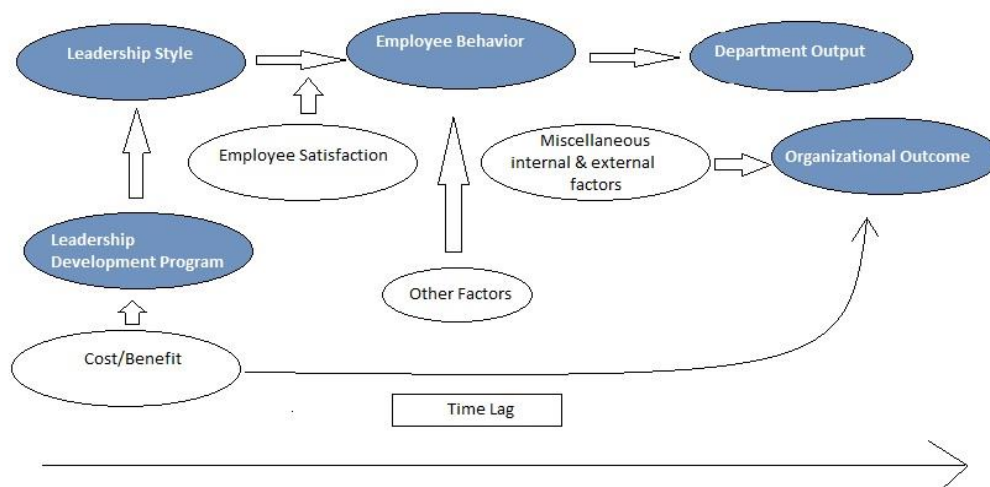
Top managers are interested in knowing if the benefit of the training and development program outweigh the ultimate cost of administering the program. The first step in the process is the implementation and administration of the development program. Even before the development program is administered, the organization has to have identified that there is some performance gap that necessitates the selected program. Blindly putting participants through a development program that has no connection to business strategy will undoubtedly fail to produce desired results. The ultimate goal of any leadership/management development program should be to change the participants' leadership style so that they have a greater impact on their subordinates' behavior. A change in leadership style is however, quite complicated and influenced by multiple factors. As explained earlier with the review of the Transtheoretical Model (Velicer, Prochaska, Fava, Norman, & Redding, 1998), a changing an individual's behavior requires that each stage of change is managed. The development program needs to first identify why the participants leadership style is not producing desired results. This would require that the participants' behavior is evaluated prior to being a participant in the development program. The program should then outline how participating in the development program will provide the necessary components to become a high performing manager or leader. Participants need to understand and believe that the program will provide the solution to the identified performance gap. The program should be structured so that is evaluates the participants' behavior based on performance metrics that are linked to business' strategy. The behavioral evaluation should not only take place before the training program, but during and especially following completion. As participants demonstrate, or fail to demonstrate, behavior indicative of the new leadership style, they should receive feedback. Feedback will reinforce the new behaviors. If the participants' leadership style does change, the next level would be to assess if there is a change in the subordinates behavior. The same variables and factors that influence the leadership style change

are present in changing the subordinates' behavior. The leadership style may change in accordance with the development program, yet the subordinates' behavior remains the same because the employees are not satisfied with the new leadership style. The next assessment looks for evidence of impact at the work unit or departmental level. Departmental outcomes, such as sales numbers, are subject to a number of internal and external variables. The final level of impact assessment is at the organizational level. Did organizational profits increase as a result of the development program? Again, organizational outcomes are subject to a great deal of internal and external variables. The majority of the variables are out of the program's scope of control. An existent issue through this entire process is a time lag. There is no way to set an adequate time frame for how long it should take development program to produce an attributable impact on organizational outcomes. Practitioners need to focus on the real issue and that is measuring behavioral change. Human Resource practitioners have the ability to account for and manage many of the variables at the behavioral level but not at the departmental or organizational level. Assessing a programs' ability to change behavior will represent the best measure of effectiveness. If assessment reveals that participants' behavior is not changing, practitioners can look at the method being used. If assessment reveals that subordinates' behavior is not changing, then the practitioner may want to look at the message of the program. As research has indicated, measuring at the behavioral change level would serve as a major improvement for the majority of organizations that provide these programs.

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