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## **Testing a Theory of Change Model for Evaluating the Impact of Action Learning Programs**

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### **Abstract**

This paper reports findings from an evaluation of an executive leadership development program in a large global healthcare organization. The paper offers a rethinking of evaluation from a transfer of learning model to a more open-ended, developmental approach based on a theory of change when learning is action-oriented, emergent, informal and incidental. Included in this paper are data from the evaluation illustrating learning increases in individual, group and system capacities to effectively engage with the demands placed on leaders and organizations in a complex, global context.

### **Purpose of the Study**

The purpose of this critical incident study was to test the use of a theory of change model of evaluation to discern both intended and emergent outcomes of more open-ended learning programs. The study sought to answer the following questions:

1. What outcomes can be identified from learning programs when the objectives are both fixed and emergent?
2. How can we use of a theory of change as an heuristic to explore multiple levels of learning outcomes?

### **Research Perspectives**

The work of Marsick and Watkins (1990, 1999) and Watkins and Marsick (1993, 2008) focuses on exploring a range of learning modes – from formal to informal to incidental that help build work-related learning capacity – and subsequently how to diagnose and create a continuous learning culture. Much learning is incidental as it is taken for granted, tacit or unconscious (Marsick, Watkins, Callahan, and Volpe, 2009). This range of learning modes leads us to rethink evaluation approaches to capture emerging program outcomes associated with more experiential, reflective learning approaches.

Training literature has focused on the best conditions and strategies to ensure learning transfer after training takes place (Baldwin and Ford, 1988, Burke & Hutchins, 2007) with an assumption of fixed learning objectives. With a new focus on learner-centered development, attention shifts to how to support the situated nature of workplace learning. Increasingly, leadership development is more open-ended, focused on learning through challenging experiences, knowledge and skill development, and solving real business problems as in action learning-based leadership development. Within these complex program designs are opportunities for individuals to self-identify outcomes; and for serendipitous outcomes to emerge from the experiences, the settings selected, and the challenges faced. When participants work on workplace problems in action learning programs, they not only learn by doing, but they also come face-to-face with the messy, ambiguous reality that often exists outside the classroom (O’Neil, J. and Marsick, V., 2007). Blume, Ford, Baldwin, and Huang (2010) acknowledged that transfer models need to be developed that address these more open-ended learning programs.

In addition, participants enter such leadership development programs as part of moving, fluid situations—with a past set of experiences and a present context having as much to do with what is learned and transferred as the program itself. When the participants are at as high a level as those in the programs studied here, they also bring a vast repertoire of previous experiences, education, and business acumen to bear on what is learned. Development programs must be tied to the level and scope of their work, which results in program that are more exploratory, work-embedded, and with learning experiences that emphasize judgment, and strategic, global thinking. Given the strategic roles of the individuals involved and the work-based activities employed in the learning process, the organization is inevitably impacted. This context led us to rethink evaluation of emerging program outcomes, focusing on change at different levels.

A more robust approach that examines both intended and emergent outcomes that impact both the individual and the organization is a developmental, theory of change approach (Patton, 2011). Watkins, deMarrais, and Lyso (2011) note, “The complexity of commingled individual and organizational outcomes and learning capacities that vary by whatever previous capacities individuals and organizations brought to the development activity requires us to rethink evaluation of emerging program outcomes, focusing on change at different levels” (p. 8). An adaptation of the Theory of Change Model of evaluation (The Evaluation Forum, 2003) was used in this study to capture this array of outcomes.

A Theory of Change model begins by asking those responsible for leadership development programs to identify the theory of change that underlies their leadership development program. Program providers identify relevant activities and show how they are linked to intended outcomes of the program. Of particular interest for programs based on action learning that operate at individual, team, and organizational levels is that they specify outcomes at four levels as shown in Table One.

**Table 1 Four levels of change (The Evaluation Forum, p.6)**

Level	Changes
Short-term Individual Level	changes in knowledge and skill in the program
Intermediate Individual Level	changes in participant behavior demonstrated at some period after the program
Organizational Level	changes in the organization that result, in part, from expanded roles of participants
System Level	changes that result in new policies, procedures, etc. that result from having better trained leaders in the organization

#### Methodology

The paper reports findings from two evaluation studies of a senior executive development program in a large global healthcare corporation. Key components of the nine-month long program were the use of global locations, case-study and traditional pedagogies to teach content in four domains [innovation, globalization, strategic thinking, and communication], action learning projects, leadership assessments, and individual coaching. A primary tool used to capture emerging changes for the individual executives within their organizations was the Critical Incident Technique (CIT), a method for collecting data used widely in many research settings since its development by Flanagan (1954). We incorporated a more narrative form of the

CIT as developed by Ellinger and Watkins (1998) where participant narratives of incidents are collected as a means to increase understanding of both behavior and reasoning of individual actors within an organizational context.

Our CIT questions began with the stem: “Think about a time when...” and asked participants to give specific incidents where they used what they learned in the development program in each of the core competence areas identified by program designers. From these data, evaluators identified the extent to which program activities led to intended outcomes, and potential areas where causal linkages may be fragile or broken. The approach provided an opportunity to capture managers’ reflections and self-reported program outcomes. In addition, supervisors gave similar critical incidents from their observations of the participant in order to establish triangulation of new behaviors. In Phase I, critical incident interviews were conducted by telephone with 14 of 15 participants and 9 of 10 supervisors (several supervisors had more than 1 participant). Written responses to our critical incident questions were sought in Phase I from peers and direct reports. The written e-mail responses consisted of 9 of 14 peer responses received and 9 of 14 direct report responses [N = 41]. We learned that while some surface changes such as using new tools or a new presentation were readily observable by peers and subordinates, the more important, subtle changes in leadership were not. These changes were generally more cognitive, such as a broadening of one’s internal vision; a change of confidence in dealing with others; a greater awareness of listening more carefully; and mentoring and developing subordinates. These changes were best reported by participants or their supervisors. Thus, later interviews did not include peers and subordinates. Respondents for Phase II of our follow up study of cohort one were all participants [14] in the first Aspire program and 9 of 10 supervisors [N = 23]. A total of 33 individuals were contacted in our second study of the cohort two of this executive development program. Informants for this evaluation were 18 of 19 participants, and 11 of 14 supervisors [N = 29]. Overall, across both studies, we conducted 93 interviews. Interviews were transcribed. Data were then coded using a modified constant comparison method blending open and selective coding (Glaser, 1998) to glean key findings in each of the program areas of interest. Coding occurred iteratively with each successive coding process building on the previous so that findings could be viewed cumulatively.

It was not possible for the program providers to develop a theory of change of their development approach prior to program delivery since the first program had concluded when we were brought in to do this study, so instead we used the model to report our understanding of the causal model undergirding the learning program and the outcomes we observed at multiple levels. For this reason, we describe our use of a theory of change approach as an heuristic to guide our analysis. Examples from both studies illustrate our approach.

### **Findings**

*What outcomes can we identify from learning programs when the objectives are both fixed and emergent?*

We explored this question across both studies. We depicted our findings in causal maps such as the one given in Figure One below (Watkins, and deMarrais, 2010, p. 12). A significant theme in both studies was a culture of talent development in the organization- with the action learning-based executive development program a significant addition to how the organization tapped, refined and honed the skills of leaders. We used the participants’ language of up and

downstream product development to convey the top to bottom, bottom to top nature of this learning.

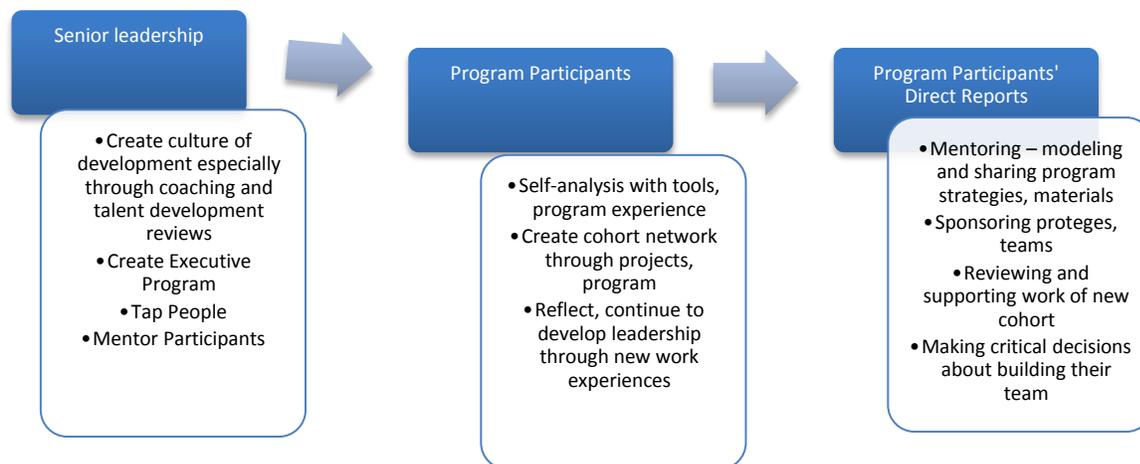


Figure 1 Becoming More Effective Mentors and Developers of People: Creating Up and Downstream Leadership Development

Data from our study emphasized this culture of talent development at different levels. A supervisor described the process this way: *“Every six months I’ll present to [CEO] [reviews] about my direct reports and their direct reports, you know people moving up and how we’re developing them, developmental curve for them, the things we do for their development, or if we hit a roadblock with somebody, if we think they’re over their head in a role. Replacements, succession planning- so that [CEO] and [VP for HR] know who they are....[it’s] the template we use which is really the [program] feeder –where we have folks we think have done well and it qualifies them to eventually be considered for [program nominations]”*

A participant emphasized his role in developing leadership among his subordinates: *“I’ve been pretty focused on people development since I’ve been in the role.... We do have a lot of people and they develop, they move into a different role in the business. And my job is to try to help them develop and give them the opportunities that they can challenge themselves and learn things new and move on in their career. So that’s meant that we’ve had new people come in and new people get promoted and their skill sets develop.”* Another participant commented *“...and I was able to share some of the concepts, some of the tools, in particular situations. And also in some conversations. That I think it’s something that we changed the way we lead, that you have to, if you learn something, share it with people.”*

Our map shows this approach of each one teach one, of developing one’s direct reports—all the way to the top of the organization, along with monitoring by those at the top of the organization to ensure that this is occurring. The figure enabled us to capture the theme, give examples of how it manifested itself, and aspects of the organization’s culture that reinforced the theme. The elements of a theory of change approach—moving from activity to outcome to goal—while making clear the incidental development and change assumptions – enhance findings from evaluation research such as this.

*How can we use of a theory of change as an heuristic to explore multiple levels of learning outcomes?*

We found we could use the causal assumptions of a theory of change to show the relationship between the learning activities and outcomes at multiple levels. From the current study, we observed these outcomes at the four levels of a theory of change approach.

Table 2. Outcomes of the Executive Program at Individual, Organizational, and System Levels

Level	Program Activities	Outcomes
<i>Short-term Individual Level</i>	Action Learning Project	Enhanced Confidence/Credibility
<i>Intermediate Individual Level</i>	Action Learning Project The Cohort of Program Participants from across functions, regions	Integration and Collaboration Across Functions
<i>Organizational Level</i>	Coaching, Strategic Leadership Module	Talent Management
	Innovation and Globalization Modules Action Learning Project	New Initiatives/Changes with Broader Impact
<i>System Level</i>	All Executive Development Program Modules	Cumulative impact of a Shared Language
	Communication Module Action Learning Project	Diversity Concerns—Finding Voice

Each of these outcomes was explored through our data. To illustrate, we give examples from one theme- the systemic impact of a shared language. Changes that result in new policies, procedures, etc. or that result from having better-trained leaders in the organization are defined as system level outcomes. Participants and supervisors were conscious of the cumulative affect of having key people at the top of the organization participating in the program. One commented: *The first is that over time a powerful system will be built and I don't think it would be—you could look for a dramatic change in any given cohort that goes through the ...program. But after three or four of them go through, I'm anticipating that there'll be a critical mass of people who think in similar ways and understand the cultural nuances, strategic direction and some tools of the trade better than they would have without the program. And they'll have a common language to speak. Now, that's important, because historically we haven't had that. We've been an organization where we acquired a bunch of companies that imported their cultures and gone public and hired a bunch of new people in—and I'm one of them. And there really hadn't been much of a social substrata for people to meet on common ground and start to think about the future together. So that's the system benefit that I anticipate seeing.*

Another comment about the importance of a shared language was this one: *What is exciting to me . . . is that the language of innovation is beginning to infiltrate parts of this very large organizations in ways that it has not before. I can see that as we continue with the ... program we are building a culture of innovation and it will continue to enhance our organizational capacity to be both strategic and innovative.*

And another example: *I think there are some things I'm talking about differently with the business units. ....There are certain approaches to healthcare reform that we need to think about taking as a company and it doesn't matter whether it's our surgical business unit or our vascular business unit. So, I'm trying to work with some of the business units to get support to consolidate some of those projects into cross-GBU, cross-functional projects, leadership sanctioning so that instead of everybody having a different conversation, we can all have the same conversation and do it once.*

One thing that was particularly noticeable in the second study due to a major redesign of the program was the pervasiveness of the action learning program as a stimulus to the learning reported by participants. This meant that while they gave numerous examples of learning from the program modules in Globalization, Strategic Thinking, Innovation and Communication in both studies, in the second program their participation in the action learning program took center stage. In the first cohort, the action learning process was not well structured and comments centered on the power of the group dynamics of being part of a high powered cross-functional, global team. In the second, the action learning projects were contrasted by participants with other elements of the program which fell short of the impact of these open-ended learning experiences.

They spoke of their use of action learning tools with direct reports [Fist 5, Ladder of Inference, Having everyone speak around the table, confidentiality of staff meetings: "what happens in Vegas stays in Vegas," and even using action learning projects themselves]. They described the projects as a powerful personal and organizational learning experience:

*It was received pretty positively . . . So, when we handed it off, we felt, we had a couple of follow-up meetings post when we syndicated our project and, following that, we actually talked to one of the people that we were actually giving the project to. And we kind of compared it to, we had worked as a team for nine months and then we were basically handing off the newborn child, the project over to the proud parents and we wanted to make sure that they were going to embrace it and take it and run with it (Watkins, deMarrais, Nicolaides, 2011, p. 26).*

Referring to another action learning project, another participant commented similarly:

*I think it's what I learned on the project. That's a key takeaway for me. ..what it did for me is it really helps me better define my role in the organization by going through that because I think going into it, I struggled, I was frustrated with many different bosses. It was a struggle for me and coming out of it, I think I understood my role a lot better. I understood what was expected of me as a matrixed employee and I've been happier as a result (Ibid., p. 25).*

Another person made a stronger statement:

*The thing to me that I gained was not as much – there were some insights into the training portion of the program, which was the innovation, the globalization strategy, I got a couple of things out of there. But I've been doing what I do for [...] years so some of them were refresher. There really wasn't a gigantic "Aha" out of the training. What really pushed me was the project. That's where I got most of my learning out of this activity because the project was really about how was [the company] going to deal with the future needs of the customer (Ibid., p. 25)..*

Of special interest to us was the way in which the combination of the high level cohort, the global experiences, and the action learning project led to incidental learning. As one person said,

*Just the amount of intangibles that go into something like this, it's really hard to describe, you know? They send you in there because they want you to read up a lot of Harvard business case studies and everything. But everything between the stuff that's happening in the classroom to having beers under a fig tree in Brazil with colleagues, and you're exchanging information, there's just so much that goes on. You don't even realize how much you're learning, whether it's the bus ride to the airport that you're sitting next to somebody that you maybe didn't have the privilege of knowing before you were in the program, and you're getting insight from them on what they do and how they do it in their particular job, what their backgrounds are.*

As is often the case, the evaluation process itself was also an intervention that enabled participants to reflect on and re-engage their learning, and encouraged supervisors to think more deeply about the outcomes one can reasonably expect from an open-ended development program such as this. Our data supported this. One participant commented, "You know, it's a funny thing, having this conversation with you, I think it certainly has increased the learning I got from this." Another noted, "I think that it requires reflection, and that's why it's nice to actually – the way we're doing it with you a year later is really – I can see the tremendous value in it, because when you do reflect upon it, I can point to just a number of things that clearly were affected by my participation" (Watkins & deMarrais, 2010, p. 6).

Like our respondents, we agreed that it is very difficult to state unequivocally that the incidents given can necessarily be traced to learning through the program. As one participant stated, *"It's difficult to talk about a Eureka moment of that magnitude and even if you did, there's so much thinking going on in your head, so many lessons, so much experience when you make a decision, it's difficult to point out just what [influenced the decision]."* Yet, even as they questioned the correlation between changed behavior and the training program vs many other influences on the individuals, everyone acknowledged that the program had *some* role in the new skills. Ferreting this out in a study such as this remains difficult.

### **Implications for adult learning**

Emerging from the critical incident interviews was the articulation of growing capacities at both individual and collective levels. At the individual level, each participant described changes in the way they enacted their roles and function as leaders in the organization. At the collective level, participants articulated a shift in their capacity to take in the process of change across the system and to act in new more collaborative ways. The potential of this qualitative approach to reveal more about changes at multiple levels through action learning-centered developmental programs has significance for those who would document emerging individual and organizational outcomes. While much has been written about individual learning, little is known about how best to document more collective learning.

Evaluation using a theory of change model as an interpretive heuristic focuses us on the essential premise of development programs—that through this set of activities, individuals will change. The model makes this assumption more transparent and more challengeable, and explores potential benefits and emerging outcomes at organization and system levels. With so much invested in executive development programs, and so little invested in evaluating them, a theory of change heuristic is one way to help adult educators ascertain program outcomes when results are less predictable, less measurable, and potentially far more impactful.

### **Conclusion**

Globalization, volatility, the rapid pace of change and the adaptive nature of challenges leaders face at all levels of the organization provoke new ways for facilitating learning. In this paper we present a theory of change as an heuristic to evaluating learning as it shapes timely action. The Critical Incident Technique captured through reflection on action and learning as well as reflection in action, the adaptive and emergent nature of learning transfer as well as micro shifts in behavior at the individual, group and organizational levels. This research points to the development of new methods for evaluating learning as timely action at multiple levels of the system and action timely in its adaptation to different global contexts.

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