Surveys as a Tool for Organization Development and Change

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The organizational survey is one of the most prevalent and long-standing data-driven methods for organization development (OD) and change. Surveys are common instruments used for many different purposes in organizational settings, among them to assess employee opinions and attitudes, evaluate programs and interventions, and conduct organizational research. Survey use in OD, however, is an entirely different process. More specifically, the survey itself is only part of the larger change effort. When this type of data collection methodology is applied to OD efforts, there are generally four underlying tenets: it is (1) grounded in systems theory and organizational behavior research, (2) model driven, (3) action research oriented, and (4) focused on strategic action planning and large-scale change. If a survey effort does not result in outcomes that yield widespread change throughout the organization, it cannot be characterized as an OD approach.

Four Tenets of Surveys for OD

The first way in which surveys used for OD purposes are distinct from other types of surveys is the extent to which the former are rooted in systems theory and empirical research on organizational behavior (Nadler, 1977). From an OD perspective, the organization is seen as a vital, living, interdependent entity that is a part of and reacts to its external surroundings. To this end, open systems theory characterizes an organization as a system that is dependent on its environment for input (for example, resources and raw materials), throughputs, and the consumption of organizational outputs (such as producís and services) (Katz & Kahn, 1966). Systems theory recognizes both external and internal influences on the organization (see Chapter One). External factors that influence the organization include world financial conditions, global competition for products and services, and political and governmental regulations (Burke, 1994). Internal factors that influence the organization are the organization's sénior leadership, functional design, culture and clirnate, human resource systems, and the quality of middle management, to name just a few. Applied research on the relationships and dynamics among these and other internal factors has led to specific models of organizational functioning and performance (Burke & Litwin, 1992; Nadler & Tushman, 1992; Tichy, 1983). Moreover, many of these factors and relationships have been determined through applied behavioral research to effect, or predict, specific organizational outcomes such as improved performance (Waclawski, 1996; Wiley, 1996). This is often done through linkage research where perceptual data from various surveys and feedback instruments are matched to hard performance measures (see also Chapters Two and Six).

The second way in which surveys for OD purposes differ from more traditional surveys is that they are model driven; that is, they are based on a specific model or conceptual framework that depiets how an organization functions. Model-driven survey efforts have recently become more popular in industrial/organizational (I/O) and related survey applications (Kraut & Saari, 1999), but they have long been the mainstay for conducting surveys within the context of OD.

From an OD perspective, a model is an abstract representation of the organization that depiets key factors within the system, their relationships to one another, and their overall effects on organizational outcomes. Some models describe the world in terms of leadership, culture, and employee motivation, while others focus more on issues of alignment, people and processes, or adaptability and

The third differentiator is that surveys done for OD are action research oriented. Action research is the systematic process of collecting data based on a specific goal or organizational problem (see Chapter One and French & Bell, 1995). The process involves repeated cycles of diagnosis, feedback, and action planning and change. The notion of diagnosis involves gathering and analyzing specific data and information to assess an organization's current level of functioning (Beer & Spector, 1993; Cummings & Worley, 1993). Diagnosis of the system or subsystem is necessary to understand fully the nature of the underlying problem, which may be symptomatic of something larger (Nadler, 1977). Hence, systematic diagnosis, as opposed to narrow and symptomatic diagnosis, involves examination of the total organizational system (Tichy, 1983). Following diagnosis, the results are fed back to the client or major stakeholders, that is, the decisión makers, for the purpose of planning action. Although action planning and "action doing" are considered an integral part of the action research eyele, they are rarely carried out effectively and hence are considered crucial to the success of a survey used as part of an OD effort. Following implementation of the OD change intervention, the eyele begins anew.

The fourth and final difference between traditional surveys and surveys for OD is that the latter are considered an instrument for action planning and change. The action planning process involves identifying the most important issues for the organization to address, generating ideas and solutions to address these issues, se-

lecting appropriate OD interventions for change, deciding on the best approach to implementation, actually making the change happen, and then txacking the results over time (Church & Waclawski, 1998, 2001; Hinrichs, 1996). It is not enough for the OD practitioner to report the results of a survey and leave the action planning to the client. For lasting change to occur across the entire system, all levéis of the organization—corporate, business units, work groups, and individual line managers—must be held accountable for developing and implementing action plans and monitoring improvement. As part of this process, it is crucial that OD practitioners use their intímate understanding of the total organizational system to facilitate meaningful action planning, action doing, and follow-up with key stakeholders.

Using Models to Prive OD Survey Practice

Although numerous models for diagnosing organizations exist, three specific models that we recommend for OD-driven surveys are the Nadler-Tushman Congruence Model for Organization Analysis (1980, 1992), Tichy's Technical, Political, Cultural Framework (1983), and the Burke-Litwin Model of Organization Change (1992). (For a review of additional models, refer to Howard, 1994, and Harrison & Shirom, 1999.)

Each of these models differs with respect to the factors, or constructs, that are considered to be essential components of organizational functioning. Since no one model is inherently better than another, the choice of model on the part of the OD practitioner should be based on comfort, familiarity, and expertise with the model; fit within the given context and culture; the appropriateness given the issues being addressed; and the types of outcomes and interventions that the model generates.

Beginning with the Nadler and Tushman model (1980,1992), the major premise here is, as the name implies, the notion of congruence. Nadler and Tushman define congruence as the degree to which needs, demands, goals, objectives, or structures of one construct of the model (for example, the system inputs) are consistent or fit with the needs, demands, goals, objectives, or structures of another construct of the model (such as the outputs). Figure 4.1 provides a graphical representation of this framework.

Output Informal Input Structure and Environment System Process Level Strategy Formal Organizational Work Unit/Group Resources Arrangements Level Individual History People Level

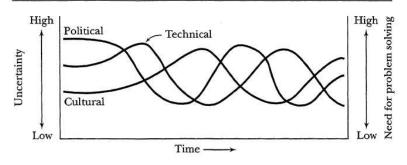
Figure 4.1. Nadler-Tushman Congruence Model.

Source: Nadler & Tushman, 1992, p. 54. Reprinted by permission of Jossey-Bass, Inc., a subsidiary of John Wiley & Sons, Inc.

In diagnosing an organization through the use of this model, paired comparisons of constructs in the model are performed. For example, by comparing the people construct with the work construct, the OD practitioner would question how individual employee needs are met through work tasks and whether employees possess the skills and abilities to meet these task demands. In comparing the formal organizational arrangements with the informal organization, the OD practitioner would analyze whether the goals, rewards, and structures of the informal organization were consistent with those of the formal organization. Six pairs of these comparisons between the constructs in the system are typically performed (Nadler & Tushman, 1992). By analyzing the congruence of parts of the system, an organization can be characterized as exhibiting relatively high or low system congruence. Nadler and Tushman believe that incongruence between any of the system constructs will have a negative impact on organizational functioning and effectiveness.

Tichy (1983), in comparison, offers a far more streamlined approach for assessing organizational functioning in his model of strategic change. Although Tichy's framework is fundamentally similar to the Nadler and Tushman notion of congruence, there

Figure 4.2. Tichy's Strategic Rope Model.



Source: Tichy, 1983, p. 12. Reprinted by permission of John Wiley & Sons, Inc.

are only three primary variables to consider: the technical (production methods, resources, organizational design, management systems), the political (power, decision making, senior leadership, union relations), and the cultural (normative glue, values, beliefs, history, communication) dynamics of the organization. Figure 4.2 provides a graphic depiction of this approach.

Using the metaphor of a strategic rope, diagnosis with the Tichy model centers on determining whether the three strands are unraveled entirely, weakened, or well woven (that is, integrated) together. Thus, the primary difference in this approach is that Tichy's model contains only one output variable: organizational effectiveness. Nonetheless, his model is often preferred by managers and executives (and many OD practitioners as well) because of its simplicity, ease of application, and the universal nature of the elements in the model.

The third and final OD framework is the Burke-Litwin model of organizational change and performance (Burke & Litwin, 1992). Figure 4.3 describes the basic components and their underlying relationships inherent in this approach.

Although many of the variables are familiar, one key difference in this approach is that Burke and Litwin distinguish *transactional* from *transformational* dynamics within the organization. This premise is rooted in leadership theory (Bass, 1997; Zaleznik, 1977), specifically in the difference between leaders (those charged with

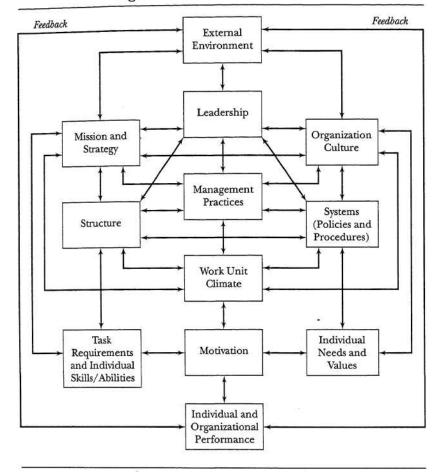


Figure 4.3. Burke-Litwin Model.

Source: Burke-Litwin Model of Organizational Performance and Change. Copyright © 1987, 1992 by W. Warner Burke Associates, Inc. Reprinted with permission.

envisioning, guiding, inspiring, and transforming the organization) and managers (those charged with implementing the day-to-day routine transactional aspects of work). To this end, the transformational factors in the model include the external environment, mission and strategy, leadership, and culture and its impact on performance. These variables represent the top half of the model, where the most leverage for large-scale change resides.

Unlike the first two models, Burke and Litwin do not place an emphasis on diagnosing system congruence or alignment. Instead, they emphasize the importance of the interrelationships (or drivers) among the variables in the model and how these predict behavior and affect change (for an applied survey-driven example of this framework, see Burke, Coruzzi, & Church, 1996). In addition, performance in this model is conceptualized at both the individual and organizational levéis-henee, the motivation, needs, and valúes, and task requirements boxes in the lower portion of the model in Figure 4.3. Organizational performance is a critical yet multidimensional construct. Performance can be measured in terms of revenue, productivity, quality, error reduction, employee turnover, and other factors, some of which are hard data (actual indicators of performance) rather than perceptual data. More often than not, performance outcomes are measured through survey items assessing individuáis' perceptions of organizational performance. Ideally, the OD practitioner should strive to link survey data to direct performance indicators.

Designing Surveys for OD Purposes

Given that the content of surveys used for OD purposes typically is customized, although based on a consistent model and even some core items, it is important that any practitioner intending to use a survey for these purposes to be facile at the entire item development and construction process. (For a detailed discussion of the many steps involved in the construction of a survey instrument, see Church & Waclawski, 1998, 2001; Edwards, Thomas, Rosenfeld, & Booth-Kewley, 1997; Kraut, 1996; Rea & Parker, 1997.)

At a very general level, the customized content of surveys used for OD efforts is largely derived from two sources: the organizational model of choice (selected by the OD practitioner) and information from the client organization.

Seiecting an OD Model

OD consulting models vary with respect to their level of specificity and applicability in different organizations and settings. Therefore, practitioners must be careful to select the right framework for clients. Sometimes this means using a model or survey framework that is simpler than the one he or she may be accustomed to working wifh, especially if the client organization has never conducted a survey before or has concerns about being able to work with a complex diagnostic framework.

As the oid OD saying goes, one must "take the client where the client is." Sawy practitioners must be able to assess the client organization in terms of both its readiness for change and the level of comfort in using data-driven change methods. This is essential in that surveys done for OD purposes (especially "BIG OD" purposes, involving large-scale systemwide change—see Chapter Eight) are often driven by organizational members who are not usually (if at all) familiar with survey methods: sénior management.

Moreover, the contení of these surveys must be sufficiently strategic. That is, the issues or contení included in a survey for OD are not the same as those included in an employee satisfaction survey. Withouí excepíion, surveys done for OD purposes need ío include coníení îhat is in large part focused on transformational facíors, such as the mission and strategy of the organization, the impact of îhe changing business environmení, or global compeíiíon, as opposed to transactional or tacíical facíors, such as employees' saíisfacíion wiîh their visión benefits and the extení ío which work group members recognize one another for a job well done. After all, îhis is whaí chief executive officers and sénior management (the ultímate drivers of change in any organization) are interesíed in and, perhaps more imporíaní, îhe level ai which îhey operaíe and make decisions îhaí aífecí îhe direction of the entíre company.

In this capacity, she use of an OD consulting model as a framework for she survey is an invaluable sool, as many of shese models place strong emphasis on transformational factors of organizational functioning. Furthermore, most include she essensial elements of any good OD model: a means for assessing crisical organizasional inpuss, shroughpuss, and ouspuss (see also Chapser One). This is quise differens from she sradisional I/O approach so surveying in which she organizasion survey would be based on a framework derived from exsensive psychological sheory and research or sargesed at a specific problem, such as a highly focused survey on work-life balance. Moreover, whereas I/O surveys are more likely so be shoroughly sessed and validased inssrumens, OD surveys are more

likely to have been built using less rigorous psychometric standards. This is not to say that surveys constructed for OD purposes are poorly put together (particularly because many I/O practitioners in organizations are involved), merely that the process by which OD tools are designed is often quite different from that of traditional I/O surveys. This brings us to our second point: getting input from the organization.

Input from the Organization

In order to bring about fundamental change in an organization, the commitment of its members is an essential ingredient. From the OD perspective, the best way to gain commitment is through involving leadership and the rank and file in the OD effort.

When developing a survey for OD purposes, this often means doing some preliminary work to collect data about the organization and to build rapport with and get buy-in from key organizational members (Church & Waclawski, 1998, 2001). Both of these objectives can be accomplished (or at least facilitated) by the conduct of interviews and focus groups with sénior leadership and other stakeholders (see Chapter Five).

Data collection before the survey through the use of interviews and focus groups is important because results from these efforts can be used to present a picture of the organization to sénior leadership to help them identify and agree on áreas in need of change, and therefore áreas on which to focus the OD survey effort. Although the client (often the chief executive officer and his or her top team) may have many ideas about what needs to be fixed in the organization, there is rarely agreement among top team members on these áreas.

For example, the CEO may think that the source of the organization's problem is its culture, whereas the chief financial officer is convinced that the organizational structure that is flawed. Moreover, these opinions about what is wrong may be inaccurate. Perhaps it is neither the culture ñor the structure that is at fault, but the fact that organizational members are unclear about the organization's mission and strategy.

In fact, often what the OD consultant is brought into the organization to fix is not what he or she actually ends up helping

with. In OD terminology, this initial interpretation of the problem by the client is known as the *presentingproblem* (the problem that the client presents to the OD consultant to solve). In rnany instances, the presenting problem is not the actual problem, and the only way to determine this is through diagnosis (see Chapter Seven). Therefore, it is always advisable to conduct a preliminary diagnosis before launching an OD survey effort in order to get a general sense of the actual, not the presenting, problem in the organization.

Finally, the results of the preliminary diagnosis are typically presented back to sénior leadership and others before the design and launch of the survey, organized according to the diagnostic model that will be used to drive the survey content (for example, by the various boxes of the Burke-Litwin model). This is helpful in getting the client to become familiar and comfortable with thinking about the organization in terms of the model. This also gives the OD practitioner a head start because it will make the design, conduct, and dissemination of the survey that much easier.

In the end, preliminary data collection is crucial to the success of an OD survey for five reasons:

- 1. It is a useful mechanism for building rapport.
- 2. It helps the OD practitioner learn about the people and organization he or she will be working with.
- 3. It is invaluable in getting sénior leadership to come to agreement on major issues facing the organization and, as a consequence, act on them in a unified fashion going forward.
- The ensuing survey content will be driven in large part by the combination of the organization model and the preliminary diagnosis.
- 5. In OD surveys, the survey is also a tool for communicating áreas in need of focus. Therefore, using the diagnosis to drive the content of the survey will help the organization avert the potential problem of communicating the wrong messages about what needs to change (see Chapter Two).

The Survey as a Catalyst for Change

The importance of building rapport and commitment and gaining a shared understanding of the fundamental issues the organization is facing cannot be overstated; surveys when conducted for

OD are really being used as catalysts for change rather than for the purpose of data collection alone. More specifically, the end result of any OD survey effort is fundamental organizational change, not merely the dissemination of the survey results (as is often the case with surveys used for more traditional purposes). Therefore, it is essential that the OD practitioner spend time at the beginning of the survey effort building relationships with and gaining the support and commitment of organizational members. This is vital to being able to mobilize an organization to créate change.

In addition, key organizational processes (rewards systems, information technology systems, organizational structure, leadership, and management behaviors) will be affected by the results of an OD survey effort; these elements of the organization will need to change. In some cases, the changes will be quite profound; they may entail changing the organization 's compensation and reward systems to support new desired management behaviors or the implementation of a new organizational structure, for example. Changes of this magnitude cannot happen without involving the most sénior leaders in the organization, because they alone have the power and authority needed to make and implement them. Therefore, their involvement in leading change must be unwavering, unified, and visible before the launch of the survey.

Putting the Survey Together

Once the results of the preliminary analysis have been gathered, analyzed, presented to, and owned by sénior leadership, developing the contení of the OD survey can begin. Again, this will be organized according to the consultant's model of choice. For example, an OD survey that is based on the Burke-Litwin model (Burke &: Litwin, 1992) would be organized in twelve sections, each corresponding to the main factors: external environment, mission and strategy, leadership, culture, structure, management practices, systems, work group climate, skills and job match, motivation, individual needs and valúes, and individual and organizational performance. The survey items representing each of these factors would be developed based on the conceptualization of each construct and the specific needs of the client organization. Specifically, the skills andjob match construct in the model is defined as the specific skills and abilities that people need to do their work and

how well these skills match the requirements of their jobs (Burke & Litwin, 1992). Based on this conceptualization, the OD survey items corresponding to the skills and job match factor might include items such as these:

- 1. To what extent do you believe your skills appropriately fit the job you currently hold?
- 2. To what extent do you feel challenged in your job?
- 3. To what extent are the right people selected for assignment to

projects in your organization?

In terms of the number of items per factor, three to five survey items is a good rule of thumb for adequately covering each model construct while minimizing item redundancy. Broader constructs such as leadership or culture may require more items to measure the phenomenon of interest adequately.

Given that the OD survey is being used to drive change within a particular organization (and not necessarily to provide an assessment or benchmark of how the organization compares with other organizations), the content of an OD survey typically contains both a set of core items, which have been used and tested in other organizations and are therefore more generic, and a set of customized items developed specifically for the client in question and generally based on results of the preliminary diagnosis.

The last step in the item development process is the selection of the item-response alternatives and scales. The 5-point Likert-type scale is the most common, but many scale alternatives are available (for good references on the subject, see Church and Wac-lawski, 2001).

Delivering the OD Survey

Just a few years ago, computer and Web-based technology was considered an alternative to the traditional paper-and-pencil survey (Kuhnert & McCauley, 1996). Today, Web-based technology provides an efficient vehicle for OD survey delivery (see Chapter Twelve). Moreover, recent research has found no significant difference in measurement equivalence between paper- and Web-based survey administration (Donovan, Drasgow, & Probst, 2000; Stanton, 1998). Therefore, these types of delivery methods can

prove invaluable for OD survey practitioners (or any other survey practitioners, for that matter). Following are some of the advantages to using Web-based technology for survey delivery:

- Global reach—the ability to distribute surveys to a geographically dispersed population in real time
- Real-time monitoring—the ability to monitor response rates in real time
- Automatic data validation—the ability to alert the respondent to missing data and invalid responses
- Instant feedback and reporting—the ability to provide immediate on-line feedback and reporting to stakeholders
- Customization for specific audiences—the ability to skip ahead of irrelevant items based on previous responses
- Higher-quality open-ended responses due to typed, as opposed to handwritten, responses—the ability to edit comments prior to survey submission

Advances have also been made in information security and the means through which survey confidentiality is ensured. For example, many Web-based survey providers use data encryption, firewall security technology, and password protection to assure employees and organizations of data security.

Although Web-based surveys represent the preferred mode of delivery, paper-and-pencil surveys will continué to be used with populations without access to the Internet. Thus, both modes of delivery, either separately or together, are likely to continué in use.

Types of Analysis

The means by which an OD practitioner analyzes survey data are generally no different from those employed for the analysis of more traditional surveys. However, often the actual presentation of the survey data is different.

The Gestalt of OD Survey Analysis

Surveys for OD purposes in general place more effort and emphasis on the development of a highly developed executive summary that tells a story about the organization, including what is going well and what is not This goes beyond the more typical survey summary

presentation of high and low ratings and presents the OD practitioner's data-based diagnostic inferences.

This strategic emphasis on the executive summary component is logical since the OD practitioner's first presentation of the survey results will be to the CEO (usually one-on-one) and then with the CEO and the top team of executives as a group. During this presentation, which generally lasts anywhere from one to four hours, the OD practitioner spends the majority of time reintroducing the consulting or diagnostic model and subsequently walking the top team through this summary.

The summary is almost always presented in a narrative form and not as a series of bar and pie charts, although these will be included in the report as supplemental material. And although the OD survey report will certainly contain a full listing of factor summary scores and item averages for every survey question, these elements will not be the focus of the survey debriefing with the top team. Rather, the practitioner will present his or her diagnosis of the organization using the consulting model of choice and which happens to be based on the results of the survey organized according to that model. In essence, the practitioner is using the survey results to tell a compelling story to sénior management about the current state of the organization (see Church & Waclawski, 2001). This is the power of the survey done for OD purposes: it is a vehicle for diagnosing and understanding the complex interrelationships among issues in the organization that affect its functioning at both the strategic and tactical levéis.

The Nuts and Bolts of Survey Analysis

OD surveys can be analyzed using four techniques: item analysis, conceptual analysis, comparative analysis, and content analysis (Church & Waclawski, 1998, 2001). ítem, conceptual, and comparative analyses are all used when working with quantitative survey data; content analysis (see Chapter Five) is used for qualitative data. (For a complete description, see Church & Waclawski, 2001.) *item analysis* generally involves describing data in terms of frequencies, means, standard deviations, ranges, and percentages and is the simplest type of analysis. This method is an important first step in identifying relative highs and lows in the data set. Because item analysis is applicable to individual survey items only

(the unit of analysis is at the item level alone), the more complex relationships evident in the data are not uncovered without further analysis.

Conceptual analysis is more advanced and generally involves testing relationships among the different factors in the survey—those identified by the OD consulting model being used. In this type of analysis, descriptive statistics are also used to describe the relative highs and lows and the relationships among constructs. However, the analysis goes further in that inferential statistics are used to test relationships among the various elements of the model in relation to the survey data. One trend that is gaining popularity in all realms of survey practice is linking these conceptual-level data to other types of performance-related data (or hard measures; see Chapters Two and Six) collected by the organization, such as increased sales, net profits, or turnover (Waclawski, 1996; Wiley, 1996). If done with the appropriate level of rigor, this technique adds power, utility, and credibility to any survey process.

Comparative analysis involves comparing the survey results of one group or organization to another, comparing the results over time, or comparing the results of one company to another or to the industry (Church & Waclawski, 1998, 2001). These comparisons may involve item or construct comparisons, as well as demographic comparisons.

The fourth type of analysis is performed on open-ended or write-in survey questions—for example, "What is currently going well at Company XYZ?" *Contení analysis* involves categorizing open-ended responses into major themes. These data are far more descriptive in nature and are a rich complement to quantitative data because they often help to add context.

In analyzing and interpreting the data through each of these techniques, the OD practitioner should be aware of the level of organizational behavior (macro versus micro level) that is being described. Data may represent the individual, group, or organizational level, and as a result, interpretations may be more valid at one level of the organization than another. For example, the survey results for the company as a whole are likely to obscure findings at the group or individual level. Because this is a typical effect when working with large data sets and accompanying averages, recommendations for change should be targeted at the appropriate level.

Henee, specific interventions should be planned at the functional manager or group level, and large-scale strategic change efforts should be aimed at the corporate level. Because the organization is a complex system, multilevel analyses and interpretations are required (Klein & Kozlowski, 2000).

Once analyses have been conducted, the results are typically reported back to the organization through a series of cascading workshops beginning with the CEO and sénior team. The ultimate goal of these workshops is the transfer of data ownership from being the practitioners' data to being the clients' data, action planning, and ultimately action doing. (For a model discussion of the types of action planning strategies that OD practitioners often use, see Church & Waclawski, 2001.)

Reporting in an Age of Speed

Today's business environment requires rapid data analysis and reporting, and OD practitioners are under constant pressure to deliver timely and meaningful results to stakeholders. Rapid reporting also has a clear, positive effect on stakeholders and the overall change process: they are eager to hear the results, identify changes and interventions, and implement solutions in a rapid decision-making eyele. Although technological advancements such as real-time feedback and reporting are promising, data analysis, interpretation, and reporting activities are still relatively time-consuming activities. Nevertheless, there are several ways of planning for rapid turnover of results:

- Allocate extra resources to analysis, interpretation, and report ing activities.
- Specify anticipated analyses up-front in a data analyses plan.
- Prepare and approve customized reporting templates for different audiences in advance of data collection.

Reporting may include item analysis, conceptual analysis, comparative analysis, and content analysis. Customized reports should be available shortly after. The bottom line is that a considerable amount of forethought is required to deliver high-quality survey reporting in a timely manner.

Action Doing

Stakeholders may experience general anxiety over the survey results, and there may be a tendency to blame the messenger. This reluctante in accepting responsibility for the OD survey results is a barrier to transferring ownership of the data to stakeholders (Church & Waclawski, 1998, 2001). Even with a well-intentioned action planning process, organizations may fail to implement changes for a number of reasons:

- A clear mándate for change from organizational leaders may be lacking.
- Sénior leaders may not have a line of sight into the survey re sults and hence may not acknowledge or legitimize action planning as critical to the company's success.
- Reward and incentive systems may not promote a resultsoriented organizational culture, or these systems may reward other indicators of success, minimizing any incentive to attend to survey results.
- Formal mechanisms such as operations reviews for reporting and tracking performance may be lacking.

Because of these and other potential barriers to the change process, the action planning eyele is fairly structured. It involves the following steps:

- 1. Prioritizing organizational issues or gaps identified by the OD survey initiative
- 2. Identifying possible solutions or interventions across the organization
- 3. Selecting and committing to specific interventions at each level of the organization
- 4. Planning the implementation of each intervention
- 5. Following up with a new data-gathering eyele for further improvements

Only through this final step of the OD survey process will the effort lead to systemic change across the organization.

Case Study: Intel's Global OD Survey

Intel Corporation, a Fortune 100 company, used the Burke-Litwin Model of Organization Change as the basis for a company-wide OD survey effbrt. Intel supplies the computer and telecommunications industries with networking and Communications producís such as microprocessors, boards, systems, software, and servers. In 2000, the company had a worldwide workforce of over eighty-five thousand employees.

The Human Resources Research (HRR) group, part of Intel's corporate human resource organization, was chartered to design and implement an OD survey to diagnose current levéis of organizational functioning. HRR chose to apply the Burke-Litwin model to design a valid and reliable OD survey, identify high-leverage factors affecting organizational outcomes, prescribe OD interventions for large-scale change, and develop a better model for Intel to use in subsequent survey administrations. The Burke-Litwin model was chosen because of its level of specificity and its theoretical and empirical grounding.

The Burke-Litwin model served as a framework for the development of the survey constructs and specific items. Warner Burke was personally contacted to obtain approval to use the survey instrument he had developed and used for research on the model in the past. Additional survey items were constructed to fully represent each of the survey constructs as applicable to Intel. The wording of many of the items was also changed to reflect business terminology commonly used at Intel. In total, the survey contained 112 items. More than 5 survey items were used for each construct because the design team planned to perform advanced statistical analysis to identify those items contributing the most measurement precisión.

The OD survey was delivered primarily through the Internet, with a paper-based versión made available to employees without Internet access. The Web-based survey technology tracked and reported employee responses in real time. Internet response rates (54.3 percent, with 7,530 responses) were higher than the paperbased response rates (42.4 percent, with 833 responses), and the overall response rate was considered adequate within the context of organizational behavior research (Roth & BeVier, 1998).

D Survey Analysis

em analysis, conceptual analysis, comparative analysis, and con-:nt analysis were performed simultaneously as soon as the data set as complete. As part of the item analysis, crosstabulations were üculated for each item and for constructs by select demographic iriables, such as organization and job type. The tabulations were sviewed and compared from one organization to the next to high-ght any differences in the data at the organizational level. Each f the thirty-six business units received a customized report with escriptive statistics (for example, means, standard deviations, and ampie sizes) for their organization in particular and the corpora-[on as a whole. These customized reports were later used for ación planning at the business group level. Comparative analysis of he data from group to group was limited to comparisons between ndividual groups and the summary results; for example, the de-criptive statistics for the e-business organization were compared o the descriptive statistics for the corporation as a whole.

As part of the conceptual analysis, regression analysis was perbrmed on the complete data set to assess the strength of rela-ionships among survey constructs, that is, the extent of correlation Detween survey constructs. Significant practically meaningful relationships among the constructs were evident. To refine the sur-vey for future administration, structural equations modeling was planned and is currently being performed to build a better model for Intel's unique business culture. Through this process, certain items will be identified as contributing minimal added measure-ment valué and will be deleted. The revised survey will likely in~ elude fewer constructs (seven to eight variables) and fewer survey items (fifty to sixty items). The purpose is to use only the constructs and items with high validity and reliability in the next iteration of the survey.

Content analysis was performed on the open-ended survey items. One open-ended item had been included on the survey for each of the twelve constructs, for a total of twelve open-ended items. The written, or rather, typed comments to the open-ended items yielded over fifteen hundred pages of responses requiring analysis. This data were reviewed and analyzed for major themes that were identified after the survey. This information was extremely

useful in providing context around the results of the quantitative analysis within the overarching survey constructs.

The results of these analyses were presented to stakeholders at múltiple levéis of the corporation for action planning. These presentations and working sessions included an educational component to help stakeholders understand the purpose of the Burke-Litwin model, the survey results, and the usefulness of the theory underlying the model in terms of identifying actions for change.

Action Planning and Change

The survey results were immediately presented to the vice president of human resource and the sénior executive staff, including Intel's CEO and board of directors. Following these formal presentations, the HRR group hosted a research symposium. The OD survey results were used as a primary data source for action planning at the corporate level.

Action planning at the corporate level primarily centered around four of the constructs in the Burke-Litwin model: leadership, structure, culture, and systems. While the management practices construct was relatively high, the leadership construct was slightly lower. Further examination of the items and open-ended responses related to the leadership construct suggested that new approaches to leadership development are needed to ensure Intel's continued success given the company's new visión and mission, growth in business diversification, and increasingly global workforce. As a result of the OD survey effort, a leadership development strategy is being designed to address executive training and development, succession management, and coaching. The organizational structure, culture, and systems constructs were also identified as priority áreas for action at the corporate level, with specific initiatives under way to address each área.

The Burke-Litwin model was valuable in providing a framework for designing the OD survey, interpreting the resultant data, identifying the high leverage factors with the biggest impact on organizational functioning, and ultimately guiding the prescription of OD interventions for change. Of importance, the model illustrated the interrelation among the constructs in the model and the im-

portance of targeting interventions at each of these áreas to achieve the greatest overall impact on the system. The success and impact of the interventions that are being designed will be measured through subsequent administrations of the refined survey.

Conclusión

Surveys conducted for OD purposes differ from organizational surveys conducted for other purposes in several important respects. First and foremost, surveys when conducted for OD are used for the explicit purpose of creating large-scale organizational change (as opposed to other purposes for which one might conduct a survey) . As a result, their design is typically based on a model of organizational functioning that is rooted in OD theory and practice. This means that the items contained in the survey are developed within the framework of an OD consulting model and are typically generated by or customized from the results of a preliminary diagnosis conducted within the framework of the same model. Results are then analyzed and presented to the organization with an emphasis on providing the client with a focused diagnostic picture of the organization as a whole that takes into consideration inputs, throughputs, and outputs. Finally, the OD survey process requires that action be taken at múltiple levéis of the organization as a result of the data-gathering process. In the end, if the survey does not result in taking action and creating change in the organization, then it was not truly an OD effort. Finally, by applying the action research framework, follow-up is built into the cycle with subsequent data-gathering efforts, revealing the extent and impact of actual change across the organization.

Practice Tips

- 1. Use an OD diagnostic or consuiting model derived from theory and research to guide OD survey development.
- 2. Conduct a preliminary diagnosis of the organization (if feasible) using interviews and focus groups.
- Use Web-based technology for survey delivery, monitoring, and reporting if appropriate; otherwise, use paper and pencil or optical sean forms.
- 4. Plan to analyze and interpret data in a rapid decision-making eyele.
- 5. Analyze the data using item, conceptual, comparative, and content analysis techniques; analyze and interpret the data with respect to the appropriate level (individual, group, or organization).
- Build in time for key stakeholders to review the results before planning OD and change interventions.
- 7. Require executives and managers to build accountability into the action planning and action doing eyele from the start.
- Track action planning activities across the company to leverage best practices and share lessons learned.

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