

Designing Surveys with Business Impact: How Workspace Design Drives Workplace Productivity and Employee Engagement

Bernie Cullen, Partner, Cambria Consulting, Inc.

A “balanced scorecard” approach to survey design creates significant bottom-line benefits for a high technology company.

Introduction

For over 20 years, Cambria has been creating innovative, customized business-focused employee surveys. Our general approach to survey design is to first understand the business issues that the survey should address; determine if a survey is the best way to go; frame the problem in terms of underlying drivers; and design questions specifically targeted to measure the drivers of performance. As a result, we tend to stay away from questions that measure “satisfaction”, preferring to ask what people experience or observe that drive employee satisfaction, or more important, cause business outcomes of interest.

In the example that follows, a large technology client came to us with a particular business question: what features of employee work environments – specifically workspace design and functionality – have an impact on employee productivity and retention. Although building design and architecture in general are not Cambria’s areas of expertise, we were able to work with subject matter experts at our client to frame the workplace environment factors that we believed were most conducive to efficiency, productivity, and employee well-being. These results were applied directly to inform the design of new buildings and the retrofit of existing buildings and workspaces.

The Issues

Our client, like many large technology companies, operates nearly one hundred buildings on or near a central campus. The design and functionality of these buildings is a hot topic for them because their continued rapid growth has led to enormous pressure to add buildings and to reduce occupancy costs per employee. In addition, new regulations and a variety of Federal and State financial incentives have resulted in increased emphasis on environmentally friendly buildings. Finally, changes in the nature and complexity of their products and services created a need to reconsider their traditional work processes.

The resulting design issues and choices were complex. Does an open plan lead to greater sharing and flow of ideas or

Measuring the impact of workplace design on productivity and retention.

does it create noise and distractions? How do you balance the desire for private offices with the efficient use of space and access to natural light? How do you ensure an adequate return on expensive technology like color printers?

Our Approach

In order to develop a business case for a wide range of workspace design initiatives, our client wanted to create a “balanced scorecard” that would, in typical fashion, measure customer factors, employee factors and business

outcomes. Cambria worked with the client's architecture and facilities group to develop survey-based measures for this balanced scorecard, which was designed to help identify buildings that are in the greatest need of redesign; define the common workspace issues to be addressed; and evaluate the impact of different workspace designs.

As part of this balanced scorecard, Cambria and the client developed 23 core workspace factors covering three key areas: physical factors such as thermal comfort, air quality and access to natural light; work process factors such as ease of interaction with others, flow of information, and sense of identity; and, resources such as the functionality of meeting rooms and access to shared equipment. These factors were designed to form the basis of a core database used to evaluate emerging issues and to track trends over time. We examined them against their impact on eight key outcomes that address three of the four components of this balanced scorecard:

1. **Process** — including (a) personal productivity, (b) group productivity, and (c) efficiency of current work processes and practices;
2. **People** — including (a) personal sense of physical well-being, (b) job satisfaction, and (c) intention to look for a new job within 6 months;
3. **Customer** — including (a) positive external customer experience, and (b) the likelihood that job candidates would accept a job offer from the respondent's group;
4. **Financial** — metrics provided via other pre-existing data sources.

Our Workspace Survey incorporates a number of innovative features specifically developed by Cambria to help quantify issues and to increase the validity of responses:

- Typical surveys focus on how **satisfied** respondents are with different aspects of

their workplace. Satisfaction-type questions leave open the significance of workplace factors for actually getting the job done or meeting business goals. In our survey, we were more interested in what **impact** these factors had on respondents' ability to get their work done, not how satisfied or dissatisfied they were on each factor.

- Our survey asked respondents to estimate the percentage improvement on each of the eight key outcomes that would take place if their current workplaces were redesigned to fully meet their needs. The more room there was for improvement, the less optimal was the current space, allowing buildings to be compared to each other. This approach allowed us to quantify the components of the balanced scorecard and provided initial estimates of the possible return there might be on a workplace redesign.
- One difficulty with most surveys is that respondents frequently answer questions without carefully thinking about their own actual experiences. Therefore, we asked respondents who had recently moved into a new building to briefly describe a recent job situation where some aspect of their workplace had a significant impact **before** answering specific questions. This technique ensured that respondents had a clearer mental image of their work environment and how it affects the way they work when they rated different aspects of their workplace.
- Our long experience designing and analyzing survey data led to some significant insights into how respondents are best able to answer questions. For example, it is far easier for someone to say that A is taller than B than to accurately estimate A's and B's actual height. We used this basic insight to quantify the impact of a redesign by asking respondents who had

recently relocated to rate their prior and current locations along the same dimensions at the same time. This “comparative rating” allowed us to calculate a simple difference score and determine the extent to which the redesigned facilities were an improvement over the prior facilities.

Results

At this writing, over 10,000 respondents, providing baseline information on 70 buildings, have completed our Workspace Surveys and post-occupancy assessment data on 12 newly designed or renovated buildings. Based on the responses received, the survey is proving highly effective in evaluating new building and workspace designs and surfacing other issues affecting productivity and physical well-being. For example, in one newly designed space, 75% of respondents saw a 10% or more improvement in group productivity compared to their original workspace, which was related to significant improvements in 11 of 23 workspace factors in the new space.

The survey was able to capture both successes and failures of current workplace redesign efforts as well. When employees compared their new workspace with their old workspace, we found a number of significant improvements on a number of factors:

- 91% of respondents reported that the functionality of conference and meeting rooms in the new space had a positive impact on their work effectiveness, compared to only 9% of respondents rating the functionality of conference and meeting rooms in their prior location.
- 100% of respondents reported effective office/workspace lighting, compared with 30% of respondents in the prior location.

- 90% of respondents rated the ability to work with others in their new workspaces as high, compared to only 18% of respondents in the previous workspace.

On the other hand, significant issues were noted for 4 of the 23 workspace factors. For example, none of the respondents saw the desk phone functionality in the new location as positively contributing to effectiveness, compared to 73% in the prior location.

Summary and Implications

The results of the Workspace Survey have informed the ongoing workplace design process: the prioritizing of which buildings need more detailed assessments; which workplace issues are general and which are specific to certain buildings or systems; and which building redesigns have worked and which require further thinking. They are also being used to evaluate the functionality of a new telephone technology, to surface issues with prevailing design assumptions and building materials, and to meet documentation requirements for Green Building Design Certification.

In the next wave of data collection, we will be measuring trends and evaluating the impact of multi-building initiatives such as improved cell phone coverage, the introduction of white noise, and energy conservation measures. The survey will also be translated for use in non-English speaking locations.

More generally, however, the Workspace Survey is an illustrative case of how Cambria’s systematic, creative, and results oriented approach to survey design helps organizations more effectively identify and address key strategic and business issues that impact people, processes and business outcomes.



Bernie Cullen has designed and implemented solutions to strategic human resources issues. A founding Partner of Cambria, Bernie has consulted on more than 75 major projects covering the design and implementation of the full spectrum of HR systems. He helped lead Cambria’s development of its competency-based HR architecture and used this approach to design recruiting, performance management, workforce planning, succession planning, and promotion processes for private-sector clients. He has also played a key role in the development of Cambria’s survey practice, particularly the development of new survey methods and measurement techniques and their adaptation for use on the Internet.