

A Call Center Case Study: The Impact of Workstation Design and Work Tools on Performance

Background

A consumer retailer with call centers in the Midwest wanted to examine the relationship between workstation features in those facilities and the comfort and performance of its customer service representatives (CSRs).

The Challenge

Customer service representatives spend virtually all of their work time within their workstations. They have high workload demands that require accuracy and speed, but they also have limited control over their work process. These job characteristics put them at risk for various health problems and can limit their performance. Since the health and performance of these employees has a direct impact on customer satisfaction, retention and company profits, even a small improvement in their effectiveness can have a significant influence on business success. The retailer viewed this project as an opportunity to understand how workstation design features affect CSR performance and determine how best to optimize its spaces.

Site Description

Two company-owned call center facilities participated in this study. The work processes, technology system and size and demographics of the employee populations were similar at both locations. The primary function of the CSR jobs at these call centers was to take merchandise orders over the phone and process the orders at a computer. Workstations at both sites used a 48 square foot layout with panel-based systems furniture. However, at one of the locations the workstations had 84" panel heights and the other location used a 62" panel height. The original intention of the site with the higher panel heights was to provide greater acoustic privacy for CSRs. At both sites, the workstations used a variety of task chairs and work tools: monitor height supports, keyboard and mouse trays, paper racks with movable shelves and trays, and adjustable task lights. But there was no set standard for the seating or work tools, and use of them varied widely at both locations.

Research Methods

We collected data using a questionnaire from a total of 385 employees at both locations (89% were female, working an average of 24 hours per week). The questionnaire was designed to collect CSR evaluations of the work environment including: workstation/work tool adjustability, workstation support for job tasks, and ambient environmental conditions (such as lighting, acoustics and air quality). The survey also collected self-reported data on psychological stress, physical and visual discomfort, job satisfaction and job performance.

Results

- ▶ We found that higher workstation panels were related to problems with physical and visual discomfort. The HVAC system was not designed to work properly in an environment with high panels. Air was pooling at the tops of the workstations and was not circulating properly. Although our analysis revealed that poor air quality was the direct cause of the physical and visual discomfort problems, the situation was exacerbated by the high panel heights.
- ▶ The greater control employees have over the adjustment of interior workstation features, the lower the stress they experience. These features included: task chair, lighting, display shelves, storage, keyboard and mouse trays, and monitor arms.
- ▶ The more effectively the interior workstation layout supports the work process, the greater the job satisfaction. We found that interior workstation features such as amount of space, arrangement of furniture/equipment, storage capacity and accessibility to reference materials influence the quality of the work process, which in turn affects job satisfaction.

Design Recommendations

- ▶ Balance the HVAC system and properly locate vents to optimize air quality and thus reduce the risk of physical and visual problems — especially if panel heights greater than 64" are used in workstations.
- ▶ Specify adjustable task seating, task lighting and work tools (monitor support, keyboard and mouse trays, paper racks



with movable shelves and trays and storage) to enhance employee control and thus reduce risk of psychological stress. Your sales representative can train you and your employees how to use and adjust these features.

- ▶ Create an interior space within the workstation that supports the functional requirements of the job and work process. To do so, carefully analyze work process requirements to optimize workstation interior layout, especially regarding storage and display of work materials. For this type of computer-intensive work, design a workspace “cockpit” in which the features and tools needed to conduct the work are close at hand.

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