

INCREASE YOUR PRODUCTIVITY 100-FOLD THROUGH ERGONOMICS

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CREATING THE UNCOMMON CALL CENTER



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Abstract

Find out how much ergonomics is costing your organization in terms of employee satisfaction, customer satisfaction, and bottom line results. Ergonomics is the science of adjusting the workplace to the worker. But the effects of ergonomics extend well beyond employee comfort. They impact productivity, morale, and even product and service quality. Study after study have proven it.

This article provides a plan of action for putting ergonomics to work for you. You will learn how employers and employees can work together to develop a long-term partnership to improve contact center ergonomics. Plus you will receive relevant research data providing best practice ideas and return on investment findings that will help to justify your ergonomic initiatives. Using this information, you can achieve positive results by improving your ergonomic environment.



Increase Your Productivity 100-fold through Ergonomics

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What is Bottom-Line Ergonomics?

At almost every seminar I teach or attend I get asked, “How can I justify investing in the agents’ work space?” When I was managing contact centers, this was a very “iffy” situation. But fortunately the field of ergonomics has blossomed and the return on investment has been significantly substantiated.

Investing in ergonomics is critical. Consider that, currently, billions of dollars are spent by employers on workers’ compensation claims associated with musculoskeletal disorders. Hundreds of thousands of workers each year suffer from these disorders.

In 1997, the National Institute for Occupational Safety and Health (NIOSH) estimated U.S. business spent approximately \$13 billion annually on musculoskeletal disorders and \$100 billion per year on related losses according to the U.S. Department of Labor. Repeated trauma accounts for 62 percent of all work-related illnesses according to the Bureau of Labor Statistics.

Studies have proven that employers can reduce these costs and injuries and thereby improve employee health, employee morale, productivity, and product quality (that means increased customer satisfaction). Studies also show that efforts do not necessarily have to involve costly or complicated processes or controls. Employers are able to achieve results through a variety of simple, flexible approaches.

Ergonomics, also known as “human factors,” is the science of adjusting the workplace to the worker. While it has been touted as improving productivity, cutting absenteeism, reducing on-the-job injuries, improving morale and minimizing turnover, we must recognize that no single solution is right for everyone. Workers and employers must develop a long-term partnership to improve contact center ergonomics. It’s an ongoing effort, not a quick fix.

Did you know?...

- There are an estimated 3 million front-line agents working in contact centers in the U.S.?
- Most of these agents spend four hours each day making up to 100,000 keystrokes on the computer keyboard?
- That a one-percent error rate (due to poor posture, lighting or noise) on a person typing 33 words-per-minute translates to 100 errors per hour or 84,000 errors per year? (Think about the downstream effect of these errors to your business.)
- That an estimated 85 percent of the agents in a contact center have keying skills below the minimum standard?
- That regardless of ergonomic furniture and accessories, safe office ergonomics are virtually impossible without correct keying skills?
- That incorrect keyboard use such as the “hunt and peck” or self-taught keying methods can lead to low productivity, errors, and fatigue to the wrists, arms, eyes and neck?

Employee productivity

Most companies I know of are looking for new ways to make their overall output more cost effective. Since labor costs are a major component of most contact center expenses, improving agent productivity has become a battle cry of management. Improving productivity can be accomplished by changing business processes, improving user “tools” and increasing employee job satisfaction. Few people would disagree with the statement that happy employees who have the right tools to perform their job have the highest productivity. Improving employee performance is central to the



improvement of overall business performance. Ergonomics undoubtedly contributes to productivity as the studies cited in this article prove.

Employee satisfaction

In most organizations, it is far more cost-effective for employers to retain a good agent than to recruit a replacement. Therefore, keeping employee satisfaction and morale at a good level is a common business goal. Many companies are providing ergonomically optimized workstations that reduce the high levels of discomfort and tension that often cause agents to move away from their workstation.

Agents will seldom come right out and say to the management team, "My work space stinks!" What you will hear are subtle statements (okay, sometimes not so subtle) like "I don't have any storage space." "I don't have anywhere to put my important papers." "I don't have enough desk space to complete all my assignments."

When Response Design conducts contact center audits, we always ask agents, "Is your workspace big enough for the big job you do?" We ask the question this way because we have found it opens them up to all the workspace issues. The agents seldom answer with size concerns. Instead they usually start talking about layout, lack of storage, privacy issues, noise, personalization and/or security issues.

By paying attention to these remarks, a company can achieve multiple objectives by enhancing agents' sense of value to the corporation, reducing stress and emotional fatigue, reducing sick leave and absenteeism and making employees more positive about the time they spend at the contact center. These intangibles contribute to the fiscal performance of the company.

Are your agents at risk?

Your agents are at "ergonomic" risk if they are experiencing any of these common symptoms:

- Headaches
- Blurred vision
- Slowness in focusing (distant to near and back)
- Double vision
- Eyestrain (sore eyes or eye fatigue)
- Eye irritation (burning, dryness, and redness)
- Sensitivity to light
- Neck and shoulder pain
- Back pain

By adjusting the workplace to the user and teaching individuals how to correctly use the computer, contact centers can quantify measurable increases in performance. These actions also reduce risk factors associated with office-related cumulative trauma disorders such as carpal tunnel syndrome and tendonitis. Good workstation posture and keying skills help reduce eye, neck, and general body fatigue.

Is your company at risk?

In recent years, several court cases have left businesses feeling exposed to the known and unknown results of poor workstation ergonomics. In one recent case three workers said typing on certain keyboards caused their work-related injuries. The three were awarded almost \$6 million. Jurors faulted the company for the lack of a warning on the product that outlined potential dangers of repetitive stress injury. The company is appealing the decision. What are you doing to reduce this kind of risk at your contact center?



Ergonomic Studies

Over the years, a great many studies have demonstrated the positive benefits of ergonomic programs among contact centers. Some are highly documented. Some are anecdotal. I offer both to help you understand the significant impact a proactive approach to ergonomics can have on your organization.

- At one cable TV company, merely repositioning the keyboards and monitors resulted in a 10 percent increase in calls handled each day.
- A study at one insurance company showed that ergonomic furnishings costing the company approximately \$500,000 contributed more than \$620,000 in improved productivity.
- At a telephone company, the introduction of an ergonomic program cut agent turnover rates from 35 percent to just two percent per year.
- A major insurance carrier completed several “before-and-after” studies of upgrades from open, bullpen-furniture arrangements to enclosed cubicles, noting productivity increases ranging from five to 21 percent.
- Ninety percent of the 200 decision-makers responding to a survey said better office design can improve productivity. And 68 percent said they had increased productivity and decision making by placing group members together. (The survey was conducted by the American Society of Interior Designers.)
- A survey of one company’s employees conducted two months after they moved into a new building with an open office concept showed 60 percent believed that productivity had improved and 80 percent had a higher level of customer focus. One area of concern was the fact that only 40 percent of the employees felt the organization was effectively sharing its best practices across departments.
- Automation and Agent Performance - Another study looked at the impact that facilities have on worker effectiveness and job satisfaction in contact centers. The conclusions were drawn from a database of over 1500 respondents from a cross-section of 70 companies in seven major industry segments.

One of the objectives was to define the job factors that most frequently influenced worker satisfaction. A significant factor contributing to job satisfaction proved to be the physical environment. Of those surveyed, 91 percent also reported that the physical environment affected their performance.

Agents cited several characteristics of an office environment as important to job satisfaction and performance. They were:

- The need to interact and communicate effectively in the environment.
- Air quality and temperature conditions.
- A space that allowed people to concentrate without noise and other distractions.
- Personal safety.
- Workspace and equipment that are adjustable by individuals to the job tasks.
- Comfort.

Forty-seven percent of the respondents reported that they had difficulties locating and communicating with peers and supervisors in the office. Thirty-nine percent also said that locating individuals and departments was so difficult that they avoided trying, even when the work depended on it. (Sound familiar?)



Management is sending conflicting messages to employees. On one hand, the agents cannot adjust their workspace to their needs and, on the other hand, are told that they are the organization's most valuable resource. The double message cannot help but have a negative effect on morale. In fact, when poor relationships exist between supervisors and agents, agents often view an open office design as a managerial ploy to reduce their personal freedom and control.

- Office Attitude Study - Office workers were asked to list elements in their work place that they thought might lead to a better job satisfaction and performance. An overwhelming 92 percent of the office workers perceived a connection between their personal satisfaction with their office surrounding and their job performance.

Eighty-five percent of the respondents mentioned good lighting as a factor, and almost that many said a more comfortable chair was important. Heating and air conditioning changes were cited by 70 percent. About 90 percent said they would feel better about their work place if they had been consulted about design elements.

By contrast with the environmental factors, only 67 percent mentioned pay raises as a contributing factor, and 25 percent even went so far as to say that they would be willing to accept a lower pay raise in exchange for a better environment.

- Video Display Ergonomics - Today, computer displays are standard office equipment for most agents. In fact, few departments within a corporation can survive without the benefits of computer technology and electronic communications. And, users are doing more at their computer than ever before. They are running multiple applications, viewing a variety of data types and viewing the screen for long periods of time.

Studies have shown that any user at their computer display for more than two hours per day is at risk for display-related problems. These same studies have shown that in keyboard intensive environments, the cost to mitigate health problems averages \$1,200 per employee per year.

In a study conducted in 1992, 70 percent of display users reported eyestrain or fatigue. Furthermore, complaints of eyestrain and muscle fatigue were two thirds lower when subjects read from a high-resolution display.

If the design criteria unique to computer displays are not incorporated into the ergonomic solution, the adverse effect on employee health can outweigh the productivity advantages of using computers in the first place.

Springers' Improving Productivity in the Workplace: Reports from the Field (Springer Associates, Inc., 1986)

This well-documented report describes 48 studies that examine how the physical environment, furniture, equipment, facility management and changes in work procedures affect performance.

Springer's study discusses the impact of ergonomically designed furniture on performance and productivity of agents at a major insurance company. Springer concluded that the best ergonomic furniture had a 10 to 15 percent performance improvement over normal conditions. According to his study, one-third of this was attributable to improved seating. (Springer, T.J. VDT Workstation: A Comparative Evaluation of Alternatives, Applied Ergonomics, Volume 13, Number 3, September, 1982, pp. 211-212)

BOSTI

A six year research study conducted by the Buffalo Organization for Social and Technological Innovation (BOSTI) studied 6,000 workers in 70 different private and public organizations. They conducted "before" and "after" research in companies where office designs were changed. The findings that are relevant to contact centers are summarized below. (Brill, M. with Margulis, S., Konar, E. and BOSTI, Using Office Design to Increase Productivity, Buffalo, NY: Workplace Design and Productivity, Vol. 1, 1984, Vol. 2, 1985.)



Enclosures

The open office design best facilitates employee communication, but only so long as the individual work area is surrounded on at least three sides by partitions higher than standing eye-height. The idea that high enclosures hide people away from each other and hamper communication is not true. In fact, high enclosures are directly related to increased ease of communication.

Floor area

Job type determines floor area. A reduction of workspace floor area by more than 25 percent generally reduces job satisfaction – but does not impact other bottom-line indicators.

Layout

The suitability of workspace layout is important for all workers and affects both environmental satisfaction and job performance. The location of furniture, location of entryways, height and number of partitions and the ability to see other people affect layout.

Windows

Most office workers prefer to be near a window and in fact, in most office environments 60 percent can see one from their workspace. However, the proximity of a window has no impact on job performance and only slight influence on job satisfaction.

Lighting

The level and distribution of lighting definitely affects satisfaction with both the office environment and the job itself. Contact center environments require two separate but complementary lighting systems, including uniform ambient lighting for displays and task lighting for hard copy reading and writing.

Noise

The sources of the most bothersome noises for agents are ringing telephones, people talking and equipment. As noise increases, job satisfaction drops.

Privacy

Most workers would opt for more privacy than they have. They do not seek absolute privacy, but want to minimize interruptions by limiting the access that others have to them. Interestingly, increased privacy is directly associated with ease of communication.

Communication

Ease of communication affects both job and environmental satisfaction. An open office with a high degree of enclosure for each individual supports communication far better than offices with less enclosure and about as well as a fully private office.

Display and personalization

Most people feel it is important to personalize their workspaces. Displaying personal items affects environmental satisfaction for all job types. Most organizations permit personalization, though even when it is not permitted, people tend to do it anyway.

Appearance

With respect to the interior decoration of their offices, office workers' preferences tend toward pastels, warm or cool colors. And natural materials like wood or fabric.



Participation

Workers who are permitted to participate in the planning and design of their work spaces are the most satisfied with their work environment and their jobs. However, only 25 percent of the work force participate in the design of workspace and these are largely managers and supervisors.

Energy Efficiency and the Bottom Line

This was the title of a booklet produced by The Rocky Mountain Institute subtitled *Increasing Productivity Through Energy Efficient Design*. In 1994 The Rocky Mountain Institute described eight companies that were seeking to increase the energy efficiency of their facilities. An interesting result of the study was that not only did they improve the energy efficiency of their buildings but they also found that there was a substantial increase in worker productivity.

GAO: Ergonomics Programs Yield Positive Results

In August 1997 the General Accounting Office reported that the officials at all the facilities they visited believed their ergonomics programs yielded benefits, including reductions in workers' compensation costs. These facilities could also show reductions in overall injuries and illnesses as well as in the number of days injured employees were out of work. Facility officials also reported improved worker morale, productivity and product quality. The full report can be obtained by contacting the General Accounting Office in Washington, D.C.

Ergonomics and productivity

A study of the relationship between ergonomic office environments and productivity published by Office Ergonomics yielded impressive data. This study was an end-user study performed at an insurance company and real estate development agency. In a survey taken by participants prior to the study, workers using computer displays more than one hour per day reported twice as many complaints of neck and shoulder discomfort as co-workers who did not use computer displays. Computer workers also reported eyestrain three times as often, had higher rates of absenteeism, reported less job satisfaction and, at entry-level positions, had a higher turnover rate than their non-computing co-workers had. Eight months of various improvements to their workstations proved to have dramatic results: absenteeism fell from 4 percent to less than 1 percent; error rates in document preparation fell from 25 percent to 11 percent; the percent of the day the computer was in use increased from 60 to 86 (an increase in active work time of more than 40 percent); and reports of postural discomfort dropped in frequency, severity, and duration. Ninety percent of their managers rated the productivity of their employees as "much improved".

Pay back

Most studies show that investments in ergonomics pay for themselves within one year. However, most studies measure only productivity of the workers and incidence of injury. Only a few measure longevity of employment, absenteeism and morale. When these are factored in, analysts believe the benefits of ergonomics are even more impressive.

Steps to Improving Your Ergonomic Environment

- Develop a proactive attitude toward ergonomics: Put ergonomics in your vocabulary. Have ergonomics as a part of employees' performance appraisal. Don't think that there is a quick, total, one-time fix for ergonomic problems. People change (they lose weight, they gain weight), people are different (height, weight) and your budget is not unlimited (no news to you, I am sure!).
- Develop a flexible approach to ergonomics by analyzing your environment: If you've heard me say it once, you've heard me say it a thousand times – there is no one right solution. And, in the case of ergonomics – one size does not fit all. Also, even when you think you have it ALL right...something will change and you'll need to update and continually improve.



- Figure out what you can do in a fiscally responsible manner: You don't need to do everything at once but make sure you have the right priorities in your plan. Get people involved here...let the agents help you decide what to do as you help them learn the business parameters for making fiscally responsible decisions.
- Understand you are working in an interrelated system: When you change one thing I guarantee it will affect something else. Taking a shotgun approach to ergonomics can be disastrous. For example, if you change the location or type of a video display you could impact glare or lighting requirements. Watch for these downstream effects of your team's decisions.
- Vary people's activities: You know what I love about the contact center these days? I love the fact that we are becoming a customer contact center. I may take phone calls one minute and answer an email the next. Or perhaps I'll be interacting with a customer located in one of our video kiosks. But apart from these types of variations, allow your agents time to look away from the computer screen, to stretch, take a short break to recover – if you don't do this about every 45 minutes or so it has been proven that productivity diminishes.
- Educate your people: You can purchase all the best equipment and ergonomic tools available but if people don't know how to use them then, well...you know. Many companies require each employee to go through several hours of ergonomic training on a periodic basis. You can even teach your agents some simple, easy, tension-reducing exercises.

What's Ergonomics Worth to You?

Do you know the value of ergonomics in your contact center? Have you calculated the ROI of an investment in ergonomics?

Believe me, it's worth your investment. Ergonomics is good for your customers, your agents and your bottom line!

Kathryn Jackson, co-founder of Response Design Corporation (RDC) and call center expert helps professionals get more from their call center. Response Design is the how-to source for integrating the call center into the customer relationship. Its independent consultants use call center web seminars, contact center consulting, call center tutorials, call center benchmarking, world class customer service articles, and best-in-class customer service practices to ensure you get the most from your call center investment.

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