Four Key Elements of an Ergonomics Gap Analysis

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About Humantech

**Humantech was founded with the single focus of improving the lives of the working population.** Over the past 35+ years, our approach has changed how organizations use the science of ergonomics to improve workplace performance.

**We’re experts in workplace improvement.** Big project or small, we bring tangible benefits to you and your company at every step. Whether you need to deploy a global ergonomics initiative or a single risk assessment, we partner with you to achieve your goals. We listen well, work hard, and evaluate ourselves based upon your success.

**We are the largest consulting team of Board Certified Professional Ergonomists in North America.** Humantech consultants combine expertise in ergonomics with practical industry experience and the skills of professional services delivery.

**Our software solutions help you take control of your ergonomics process.** Humantech’s proprietary assessment and solution tools, e-learning, and central online system give you a faster, more effective and efficient way to manage ergonomics corporate-wide.

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The Job Improvement Process
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Verify and track progress. With The Humantech System, ergonomics process owners can easily monitor the activities of the ergonomics team, track the status of improvement plans, and generate reports.

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These features make The Humantech System® more accessible than ever before:

- Wide-screen Layout
- Advanced Assessment Tools
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About the authors

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Contents

About this Book .................................................................................................. 2

Introduction .......................................................................................................... 3

Four Key Elements of an Ergonomics Gap Analysis:

#1 – Establish the Criteria .................................................................................. 5

#2 – Use Capable Evaluators .............................................................................. 6

#3 – Complete a Comprehensive Evaluation .................................................... 7

#4 – Provide Actionable Direction ......................................................................... 9

Final Thoughts... ................................................................................................... 11

Additional Resources ............................................................................................ 12
About this Book

This e-book is the first in a five-part series exploring how companies can build and sustain a successful, world-class ergonomics process or, as we like to say, “do ergonomics right.” Humantech’s Engagement Model was created as an easy-to-follow framework for those companies dealing with the challenge of implementing a new ergonomics process, restarting one that has fizzled, or improving an existing one. Each e-book in the series will focus on a different step of the Model and share tips and best practices that we’ve learned through our nearly 40 years of assisting organizations with workplace ergonomics. We can honestly say that when it comes to creating an effective, efficient, and sustainable process, we’ve been there and done that.

The Model we use is simple and has been proven effective. It looks like this:

1 2 3 4 5
Gaps & Fit  Foundation  Leadership  Deployment  Review

In this first e-book, we explain step 1, Gaps & Fit. Whether your goal is to comply with local regulations, meet company standards, or develop a world-class ergonomics process, you must determine “where you are” and “where you want to be.” It is necessary to understand the gaps before devoting time and energy to determining the fits that lead to the planning and launch of your program. We’ll cover steps 2 through 5 in future e-books produced throughout 2016.

We invite your comments, questions, and reactions to this e-book on our blog, The 30-Inch View. And if you enjoy what you read, please feel free to share it with colleagues and co-workers.
Introduction

Ergonomics has become a priority in today’s workplace. We talk with business leaders who are concerned with the condition of the tools, furniture, and equipment they provide employees, tasks performed by their employees, and their frustration with strain and overuse injuries occurring at work. Many of these employers implement ergonomics programs to prevent musculoskeletal disorder (MSD) injuries. Some are successful, others struggle to gain the traction needed to reduce the injuries and their costs. Fortunately, through research and benchmarking studies, we have evidence that organizations that are successful in managing ergonomics and reducing MSD risk factors create a continuous improvement process, not a program. In this e-book we are careful to use the term, “ergonomics process.”

This process approach applies at a couple of levels: (1) when addressing MSD risk in the workplace (the job improvement steps), and (2) when managing all elements of the ergonomics process. Both approaches are founded on the continuous improvement steps of Plan-Do-Check-Act cycle.

The job improvement steps for addressing MSD risks include:

- **Plan**: Find MSD risk factors in the workplace. Select jobs with high and moderate levels of exposure.
- **Do**: Make changes to the existing tools, furniture, equipment, and job design that will reduce the level of exposure to MSD risk factors.
- **Check**: Verify if the change (Do) reduced the level of exposure to an acceptable (low) level.
- **Act**: Sustain the improvement to control the risk.

These job improvement steps are the tactical elements of an ergonomics improvement process. Think of the ergonomics improvement process as similar to an environmental or safety management system. It is a means for integrating ergonomics into the existing methods used to manage all aspects of a business. There are many examples of the components of an ergonomics process aligned with a safety management system. A few are provided in the Additional Resources section of this e-book.

Although most employers are familiar with using the continuous improvement methodology to manage ergonomics at a tactical level, we receive requests from many who struggle with the strategic aspects of establishing an ergonomics process, or transitioning their current ergonomics program into a sustainable, effective, and efficient process. The five steps of the Engagement Model are the roadmap for this transition. And it all starts with a Gap Analysis.
What is a Gap Analysis?

A gap analysis is a way to assess the difference between the current situation (where you are) and meeting the requirements and expectations of an overarching goal (where you want to be). We’ve found a gap analysis to be a critical step in planning a new ergonomics process, or transitioning to a more effective one. Think of it as a diagnostic step. The results of a gap analysis provide everyone in an organization with a common understanding of the current situation and enable them to form a common vision for the ergonomics process. The key information resulting from a ergonomics process gap analysis includes:

- What are we not doing, or not doing well (what are the gaps)?
- What are we doing well (the things we can leverage, or the fits)?
- Where do we want to be (vision and goal for ergonomics and MSD injuries)?

There are as many ways to perform a gap analysis as there are ways to conduct an audit. The best way is to use a method that is most familiar to your organization and adjust the criteria to focus on MSD injury prevention and ergonomics. That said, we have found that there are four critical elements of a gap analysis, and we will describe each one for you. Read on.
Establish the Criteria

The starting point for a gap analysis is to determine what criteria will be used. The selection of the criteria depends on what you are trying to achieve—your goal for the gap analysis. For example, is your goal to improve management of the ergonomics process, meet country regulations, and/or meet company standards?

Based on your goal, select and compile the elements (criteria) needed for a comprehensive gap analysis. For example, we are most often asked to determine the gaps between a company’s current ergonomics program and a world-class process. So, our criteria is based on the strategies, features, and elements of organizations with successful ergonomics processes. We’ve learned what differentiates these leading companies through a series of benchmarking studies. From this information, we create criteria to guide the investigation.

In addition to having the goal of improving their ergonomics process, many organizations have additional needs, such as complying with country and local regulations; meeting the company ergonomics standard, quality standard, and engineering standard; or adhering to an established safety management system. The key is to tailor the criteria to match your particular goal.

The criteria for a gap analysis should include two general categories: what must be done (standards and regulations) and how best to do it (best practices). Once the criteria are defined, you must ensure that the right people are using the criteria.
Use Capable Evaluators

Who conducts your ergonomics gap analysis is equally important as what (criteria) is evaluated. Evaluators do not necessarily need to have technical knowledge of ergonomics (as do ergonomists, ergonomics team members, or safety professionals), but they do need to have some familiarity and knowledge of the steps of an ergonomics, safety, or quality process, or some form of process management. In other words, it’s critical to have a process mindset in order to look at the current ergonomics program as a whole.

Conducting a gap analysis is similar to performing an audit, so those individuals conducting the gap analysis should have the same capabilities and skills that auditors have. Evaluators should be able to:

- **Conduct effective interviews.** Manage the interview; ask open, probing questions; ask the right questions; practice active listening; and inquire to discover, clarify, and verify findings.

- **Integrate information from multiple sources.** Align the information gathered with the gap analysis criteria, and then compare and compile the findings.

- **Be objective.** Ensure that the findings and conclusions are validated.

- **Identify gaps:** Based on the criteria, find those process elements that are lacking (e.g., a gap) and identify the root causes.

- **Identify opportunities:** Based on the criteria, determine good practices and systems to leverage or promote.

Once the right evaluators are selected and prepared, the real work begins—conducting the evaluation.
Complete a Comprehensive Evaluation

Remember that the goal of a gap analysis is to identify the gap between the current program and where the organization wants to be, and then help the organization get there. To meet this goal, you must look at all aspects of the current process and compare them to best practices. Good models to follow are a continuous improvement cycle, safety management system, or environmental management system. Use these as a framework, but modify them to address MSD risk factors. Several associations have created guides that describe the elements of an ergonomic improvement process. A few are listed in the Additional Resources section.

It is our experience that a comprehensive evaluation is not limited to only if the criteria is met, it also evaluates how well it is performed. There are three primary components of an evaluation:

- Review key documents and records
- Interview key people
- Observe the workplace

Program documents show written plans, charters, responsibilities, procedures, and other key information about a program’s structure. Records show history of progress and improvements made (people trained, risk assessments, risk map, ergonomic controls implemented, risk reduction, and metrics tracked by top management). Evaluators should review information from both of these sources before conducting an on-site visit, as they help determine the focus of interview questions.
Program documentation tells us “what is planned” and “what was done” (and written down). Interviews tell us “what is happening today.” Open discussions with people at all levels of an organization provide insight on their range of perspectives and allow evaluators to gauge the awareness, understanding, support, involvement, and accountability of each. Select interview questions based on the role the person has in supporting the ergonomics program. The questions for a CEO or plant manager will be very different from those asked of engineers, line employees, supervisors, medical staff, or ergonomics team members. However, each different interviewee provides an opportunity for you to learn more about specific elements of the program (metrics, using ergonomic design criteria, funding ergonomic improvements, prioritizing MSD risks, etc.) and to hear concerns, questions, and suggestions for strengthening it.

Seeing the workplace is a way to validate the ergonomics controls described in records or during interviews and a way to understand some of the risk reduction challenges a site may face. We’ve found that conducting interviews while touring the workplace helps put the people being interviewed at ease. Being in their own work environment allows them to show and describe challenges and successes.
Provide Actionable Direction

Informing the leaders of your organization about the gaps and opportunities you’ve identified is a valuable final step. Ultimately, you want to provide them with clear direction on the actions they need to take to close the gap. But first, you have to show your work.

Communicating the findings of such an evaluation may be a “tough love” exercise. First, you’ll have to explain what they are not doing, or not doing well. Fortunately, after going through the interview process, most program leaders have experienced a self-discovery and are well aware of some gaps. A good evaluator has objective notes and quotes from interviews, program records, and data, which lead to an obvious conclusion. An effective way to illustrate the gaps is to put the evaluation criteria in table form, with the column headings “Meets Expectations” and “Needs Attention.” Showing the findings mapped to the criteria as a process helps people understand the interactions and sequence of the entire ergonomics process. Napoleon once stated “Un bon croquis vaut mieux qu’un long discours,” which translates to “A good sketch is better than a long speech.” His words hold true today. If you can present the findings visually (for example, in a radar chart or table), your message will be better received.
Along with the bad news, give good news. Leadership needs to hear what is going well. This could include highlighting a well-managed training program, an effective evaluation process for ensuring accountability, a safety risk assessment method that could be expanded to include MSD risk factors, or a good engineering Phase Gate Review process that could be expanded to include ergonomic design criteria. The goal here is to find existing systems that are effective in the organization and into which elements of the ergonomic improvement process can be integrated. By “finding gems,” you identify existing ways to close the gap.

The gap analysis and list of what is/is not done well needs to provide direction. The gap analysis must do so through recommendations on both the strategies and tactical steps needed to close the gap and get the organization to “where we want to be.” Strategies are high-level changes to the overall approach, such as changing from lagging to leading measures, expanding ownership and involvement to all levels of the organization, or moving from a program to a process based on continuous improvement. To make these high-level changes, you’ll need to provide tactical steps—a list of recommended actions in a specific order. This is the roadmap that will guide the organization to close the gaps and achieve its goal.
Final Thoughts

Taking time to diagnose the current program (or lack thereof) is essential. As a result, you will have the information you need to design and plan an ergonomic improvement process that best fits the scope, need, culture, and resources of a site or organization. A good gap analysis expedites the next steps in planning and launching an effective, efficient ergonomics process that is sustainable over time. It is the basis upon which to develop the Foundation, the second step in Humantech’s Engagement Model.
Additional Resources

Benchmarking Study: Elements of Effective Ergonomics Program Management. (2011)
