

Worker Care Spectrum Ability Management: Job Analysis

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OBJECTIVES



- Understand the Role and Importance of Assessment in Ability Management

CONTENTS

- Job description
- Job analysis

GROUP ACTIVITY-Pre Test



Imagine you are tasked with designing a comprehensive employee wellness program for a newly established company

1. How will you conduct job description, job analysis, task analysis & ergonomic evaluation?
2. How would you plan injury prevention & employee fitness program?

Defining Worker Care Spectrum Ability Management



- **What is it?** Comprehensive approach
- **For what?** Supporting employees' well-being & optimizing their abilities within workplace
- **What does it consists of ?** Practices, policies & initiatives

Aim Worker Care Spectrum Ability Management



Prevention (OHH)

+

Promotion (physical, mental, emotional & professional health)

Worker Care Spectrum Ability Management: Components



Assessment

+

Prevention & Promotion

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Ability Management: Assessment



Job Description

- Written or verbal description of function of job done
- Principal purpose of classifying the job in terms of wages, hiring, promotion, general responsibilities
- Lacks standardization
- Varies from job to job
- Usually it is taken from employer

Worker Care Spectrum

Ability Management: Assessment



Job Description

- Title of job
- Department
- Job location
- Person reviewed
- Reviewed by
- Date of review
- Pay scale: non-exempt/ exempt

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Job Description

- Duties: Essential tasks and Non Essential tasks (not essential to the specific job or those shared by many different employees)
- Job requirements:
 - Qualification:
 - Demands of job:
- Working conditions:
 - Time of work
 - Rest period
 - Overtime duties/Shift hour
 - Number of employee
 - Tools handled

Worker Care Spectrum

Ability Management: Assessment



Job Analysis

Definition

- What is it? Systematic process
- Of what? Examining & documenting various aspects of a job
- Where? within an industrial setting
- For What? To understand its requirements, tasks, hazards, and environmental factors that may affect the health and safety of workers

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Job Analysis

Application/Benefits

1. Worker And Job Match
2. Rehabilitation Need
3. Job Modification
4. Training And Injury Prevention Program
5. Tool Design & Redesign

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Job Analysis

Types of evaluation

- Measured/observed w.r.t. time frame: short period of time(min-hrs) or long period of time(days-years)
- Qualitative : Interviews, observation, questionnaire, focus group, job diaries or log
- Quantitative: Technology assisted (camera based/sensor based)

Worker Care Spectrum Ability Management: Assessment



Job Analysis

Subsets

- Job demand analysis
- Task analysis
- Ergonomic evaluation

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Job Analysis

Subsets-Job Demand Analysis

- What is it?: Objective & systematic procedure to identify demands of a particular job (essential & non-essential)
- Demands of job may be classified into
 - Cognitive
 - Physical
 - Sensory
 - Motor
 - Balance & Coordination
 - Cardio respiratory
 - Environmental condition

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Job Analysis

Subsets-Task analysis

- More detail evaluation of individual components of job which are considered to be essential, frequent or potentially at risk in terms of frequency, force & duration
- JDA: Lifting causative factors for low back pain
- TA: X pounds of weight, lifting X number of time, height lifted, distance carried

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Job Analysis

Subsets: Ergonomic Evaluation

- Ergon= Work, Nomos= Laws of work
- It is a mathematical analysis of any aspect of a job that is identified during JDA & TA
- To use that information in designing jobs, products, workplaces & equipment

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Job Analysis

Ergonomic Evaluation Subsets

1. Work station/ work place design evaluation
2. Tool evaluation
3. Environmental evaluation

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Job Analysis

Ergonomic Evaluation Subsets

- Way work station is laid down can have effect on how efficiently people do their jobs
- 2 major categories of workplace
 - Sitting
 - Standing

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Job Analysis

Ergonomic Evaluation Subsets

- Way work station is laid down can have effect on how efficiently people do their jobs
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 - Standing

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Job Analysis

Ergonomic Evaluation Subsets

Work station/ work place layout

- Should be appropriately matched to tool, environment & task of job
- 3 types of reach zone to be considered while planning the reach zones:
 - Primary Reach Zone:
 - Secondary Reach Zone:
 - Tertiary Reach Zone:

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Job Analysis

Ergonomic Evaluation Subsets

Work station/ work place layout

1. Primary Reach Zone:
 - Area of reach from with elbows beside the body
 - Frequently accessed items
2. Secondary Reach Zone:
 - Reach distance from shoulder with arms stretched out
 - Occasionally accessed
3. Tertiary Reach Zone:
 - Reach distance when torso is flexed from waist and the arms are stretched out
 - Infrequently accessed items

Work place Physical Dimensions

1. Clearance under the work surface
2. Work surface height
3. Width & depth of work surface
4. Types of work surface

Height clearance for thigh

❖ Thigh height + popliteal height

❖ Thigh clearance : sitting surface to highest point on the top of right thigh

❖ Popliteal height: foot support surface to the back of right thigh

Clearance under the workplace

Height clearance for knee

- ❖ Knee height: Foot support level to the top of knee cap while seated with leg at 90 degree

Depth clearance for knee

- ❖ Buttock to knee length - abdominal extension depth
 - ❖ Buttock to knee length: back of the buttock to front of the knee
right knee
 - ❖ Abdominal extension depth: front of abdomen to back at the
same level

Clearance under the workplace

Width clearance of thigh

- ❖ Hip breadth: lateral point of thigh or pelvis (highest point)

Height clearance for foot

- ❖ Foot height: standing surface to right lateral malleoli

Depth clearance for foot

- ❖ Buttock to popliteal length+ foot length-abdominal extension

depth

- ❖ Buttock to popliteal length= back of the buttock to back of the right

Work surface height



Popliteal height + Seated elbow rest height

Elbow rest height is measured from seat pan to the bottom of the right elbow when elbow is at 90 degrees of flexion

Work surface height



Popliteal height + Seated elbow rest height

Elbow rest height is measured from seat pan to the bottom of the right elbow when elbow is at 90 degrees of flexion

Work surface width & depth



Depends on the width & depth of tool used

Summation of tools kept in primary & secondary zones

Type of work surface

- ❖ Adjust independently & that move relative to each other are ideally preferred
- ❖ If multiple surfaces are used = should not interfere with seating arrangement
- ❖ Edges & corners should be rounded & have non reflective surface

STANDING

- Standing work operators often work in an area around a machine instead of at a given workplace.
- Factors to be considered in the evaluation of seated workplace is
 1. Work station/ work place layout/ or placement (refer sitting)
 2. Physical dimension.