

Advanced Industrial Psychology Industrial Training

Training Needs Analysis



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What We Will Cover in This Section

- Overview
- Gap model.
- Organizational analysis.
- Individual performance analysis.
- Summary.



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Training Needs Analysis

Process of determining specific training needs required to meet a job-related set of organizational, unit, or individual goals.

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Gap Analysis

- SHOULD: What do we expect to be happening?
 - Individual
 - Group
 - Organization
- IS: What is currently happening?
 - Individual
 - Group
 - Organization

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Gap

SHOULD

- Situational problem?

- IS

- Personal problem?

GAP

- Group problem?

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Gap Analysis Example

	Organizational Need	Situation	Person	Group
Should	80 % of faculty will use PowerPoint to teach.	Active computer connections in each room.	All faculty capable of using.	All faculty want to use.
Gap				
Is	10% of faculty use PowerPoint.	No active computer connections	10% of faculty can use.	25% of faculty want to use.

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Organizational Analysis

1. Organizational support.
2. Organizational analysis.
3. Requirements analysis.
4. Needs assessment.
5. Person analysis.



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1. Organizational Support

- Top management
- Key members.
- Liaison team



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2. Organizational Analysis



- Strategic plan
- Organizational goals
- Changes
- Gap analysis
- Training climate
- Assess constraints

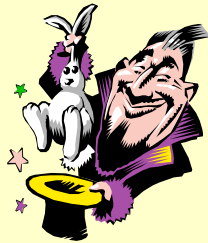
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3. Requirements Analysis

- Define target job.
- Research background materials.
- Choose analysis technique.
- Select participants.
- Develop analysis materials.



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Analysis Sources: Direct Observation

- Activity.
 - Directly observe and take notes of job incumbents daily work behavior.
- Pros.
 - See work as it occurs.
 - Minimizes interruption of work activities.
- Cons.
 - Reactivity.
 - Skilled observers.
 - Hard to get at covert behavior.

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Analysis Sources: Interviews (1)

- Individual Interviews
 - Pros
 - Direct personal information.
 - In depth data.
 - Cons
 - Time consuming
 - Interviewee reactivity

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Analysis Sources: Interviews (2)

- Group interviews.
 - Pros.
 - Many viewpoints.
 - Builds support for project.
 - People build on others' ideas.
 - Generates a lot of information.
 - Cons.
 - Time off of the job.
 - Expert interviewer.
 - Expensive.
 - Can be difficult to analyze if there is a lot of data.

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Interview Questions

1. Interviewee background.
2. Verify interviewee expertise.
3. Get general picture of the situation or problem.
4. Seek details of the situation.
 - What should be happening?
 - What is happening?
 - Critical incident technique.
5. What causes the problem(s)?
 - People.
 - Situational.
6. How do people feel about the situation?

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Analysis Sources: Questionnaires (1)

- Typically focus on frequency, importance, difficulty, and current skill level.
- Variety of formats.
 - Open ended.
 - Forced choice.
 - Ranking.
- Variety of response formats.
 - Rating scales.
 - Q-sort.
- Variety of administration options.

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Analysis Sources: Questionnaires (2)

- Pros.
 - Large number of people quickly.
 - Inexpensive.
 - Confidentiality/anonymity.
 - Easy to summarize.
- Cons.
 - How to code open-ended responses.
 - Selective responding.
 - Hard to get at causes of problems.
 - Hard to get follow-up information.

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Analysis Sources: Company Documents

- Sources
 - Administrative documents
 - Employee records
 - Meeting
 - Work samples.
- Cons
 - Causes of problems may not be evident.
 - Focus on past.
 - Completeness
 - How to look at trends.
- Pros
 - Identify trouble spots.
 - Objective
 - Easy to gather

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Analysis Sources: Journals

- Use print magazines, books & and journals.
- Pros.
 - Good for norms.
 - Get current trends and standards.
 - Easy to get.
- Cons.
 - How to analyze.
 - Not always organizationally specific.

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Analysis Sources: Tests

- Use tests and demonstrations to assess skill level, knowledge, or awareness.
- Pros.
 - Directly assessment.
 - Easy to quantify.
- Cons.
 - Validity issues.
 - Is the knowledge or skill being used on the job?

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Analysis: Work Samples

Samples of work output.

- Production samples.
- Proposals and documents.
- Letters.
- Computer programs.
- Simulation/case study performance.

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Select Participants

- Job incumbents.
- Job content experts (JCE).
- Key people.
- Issues.
 - Is the group representative of job?
 - Who does the selecting?
 - Do key people know the job?
 - Do key people have the big picture?
 - Politics.

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Develop Scripts or Outlines

- Action plan.
- Interview scripts.
- Observation outlines.
- Invitation letters.
- Thank you letters.

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4. Task and KSA Analysis

Task Analysis

Analysis that focuses on specific job activities that are required for successful performance.

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Task Analysis, Cont.

TASK STATEMENT.

A statement of an individual work activity.

Examples.

Uses a miter box to cut angles in crown molding to make gap-free joints when the molding is installed.

Uses the Pilot program in the library to search for written materials to use in a research paper.

Using a computer, correctly computes loan payments for standard 10, 15, 20 and 30 year fixed interest mortgages.

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Elements of a Task Statement

WHAT a person does.

HOW the person does it.

TO WHOM or TO WHAT the activity is directed.

WHY the person does it.

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Breakdown of a Task Statement

Using recipe cards, measuring cups, and a bakers scale correctly determines the ingredients needed to bake 40 dozen chocolate chip cookies.

How? Using cards, cups and scale.

What? Correctly determines ingredients.

Why? Bake 40 dozen chocolate chip cookies.

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What is missing from each of the following task statements?

Delivers newspapers on a daily basis.

Uses a saw, hammer, and nails.

Is responsible for making sure that students understand the key elements of a task analysis.

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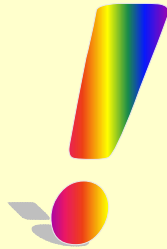


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Challenge!

Construct two task statements for the following activity.

Making a bed.



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Task Cluster

A group of related task statements that together make up a complete work activity or job function.

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Task Cluster Example

- *Using recipe cards, measuring cups, and a bakers scale correctly determines the ingredients needed to bake 40 dozen chocolate chip cookies.*
- *Correctly mixes ingredients in the proper order for chocolate chip cookie dough using a commercial mixer.*
- *Sets and preheats oven to the correct temperature for baking cookies.*
- *Dips dough and bakes cookies ensuring uniform cookie size and minimal waste through under or over cooking.*

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KSAC Analysis

- Knowledge
 - Organized body of information a person has at his/her disposal.
 - Factual knowledge.
 - Procedural knowledge.
- Skill
 - Motor capability to perform some task or set of tasks.

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KSAC Analysis

- Ability
 - Cognitive capability an individual possesses to perform some task.
- Characteristic
 - A person's typical behavior. Typically referred to as *personality*.

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Other Considerations

- Socialization
 - Expectation that individuals will form personal bonds with other members of the training group.
- Rite of Passage
 - Recognition that successful completion of the training represents a significant change in the person's status in the organization.

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KSA::Task Matrix

	Be able to read, interpret, and apply information in recipe cards	Be able to lift 100 pounds.	Be able to read and interpret manuals for kitchen machinery.
Knowledge	X		X
Skill		X	
Ability	X		X
Characteristic			

Assessing Training Relevance

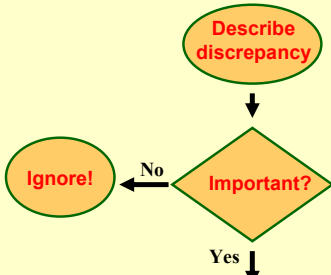
- Frequency
 - How often does a person perform this task or use this KSAC?

- Importance
 - How critical is this KSAC to job success?

Frequency::Importance Chart

Importance	High	Important	Critical
	Low	Not Necessary	Important
		Low	High
		Frequency	

Individual Performance Analysis

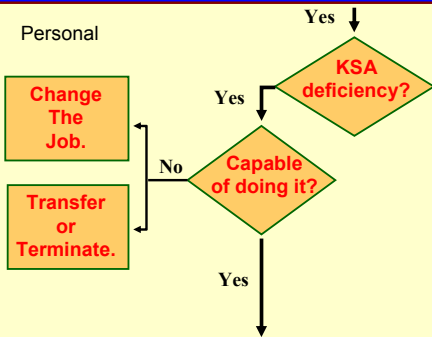


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Personal

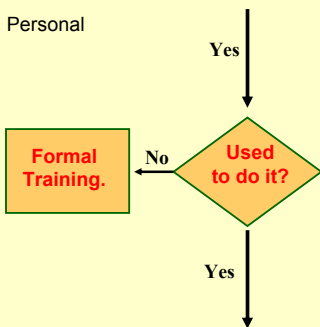


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Personal



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