People Management Skills Matrix
Purpose of Module

To enable attendees to visually recognise varying levels of ability in a structured way. To develop focused training plans to maximise flexibility and to enhance the development of every individual.
Agenda

- What is a Skills Matrix?
- What are the key elements of a Skills Matrix?
- How to we quantify the Skill Levels
- What is a Skills Matrix used for?
- How Skills Matrices focus training plans?
- How to develop a Skills Matrix.
- How to Skills Matrices drive improvements.
- Monitoring and control of plans.
- Skills Matrix Standard Format.
- Who should own the Skill Matrix?
- Upkeep of the Skills Matrix
What is a Skills Matrix?

- It is an integral part of our Visual Management System (VMS).
- It is a simple visual tool to aid in the management, control & monitoring of skill levels.
- It displays all tasks & skills required to work in an area or team.
- It displays all current team members.
- For each team member it displays current competency/ability levels for each task.
- It is a simple tool to aid resource planning.
What are the Key elements of a Skills Matrix?

<table>
<thead>
<tr>
<th>Team/Area:</th>
<th>Skills/Tasks</th>
<th>Team/Area Leader:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Team Members**

- **Name**: Tom
  - Skills/Tasks: Milling, Drilling, Deburring
  - Score: 12, 12, 12

- **Name**: Dick
  - Skills/Tasks: Milling, Drilling, Deburring, Grinding, Painting
  - Score: 14, 24, 12, 12, 12

- **Name**: Harry
  - Skills/Tasks: Milling, Drilling, Deburring
  - Score: 10, 24, 12

**Skill Level Key**
- Un-Trained
- Learner
- Practitioner
- Developer

**Possible Key Performance Indicator**
- Scoring: 35, 72
How do we Quantify the Skill Levels?

**Untrained:** No experience of the skill/task/work instruction/package.

**Learner:** Being taught the skill/task/work instruction/package.

**Practitioner:** Can carry out the skill/task/work instruction/package:
- Safely.
- To the correct quality standards, first time.
- Without assistance.
- To 1.5 times the standard cycle time i.e. is still not up to speed.

**Developer:** Can improve the skill/task/work instruction/package:
- Safely.
- To the correct quality standards, first time.
- Work to the standard cycle time.

**Coach:** Someone who has the skill level of a Developer, but can train & develop others in carrying out the skill/task/work instruction/package:
- Safely.
- To the correct quality standards, first time.

Continued, Please Turn Over....
How do we Quantify the Skill Levels?

• **In setting skill levels our aim is to be:**
  - Objective.
  - Consistent
  - Fair to all employees.

• **Use our procedures, these should have necessary information on:**
  - Standard Operations.
  - Standard cycle times.
  - Design Specifications.
  - Quality Specifications.
# How do we Quantify the Skill Levels?

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Untrained</strong></td>
<td>No Experience</td>
<td>No Experience</td>
<td>No Experience</td>
<td>No Experience</td>
</tr>
<tr>
<td><strong>Learner</strong></td>
<td>Can do with assistance &amp; reference to the Standard Operation.</td>
<td>Can complete the Standard Operation, slower than 1.5x Cycle Time</td>
<td>Can build to required specification only with assistance &amp; reference to the Standard Operation.</td>
<td>Understands quality specification &amp; key points, but can not demonstrate them.</td>
</tr>
<tr>
<td><strong>Practitioner</strong></td>
<td>Can do without assistance or reference to the Standard Operation.</td>
<td>Can complete the Standard Operation, in 1.5x Cycle Time or quicker</td>
<td>Can build to the required specification without reference to the Standard Operation.</td>
<td>Can achieve required quality standards &amp; can demonstrate reasons for key points.</td>
</tr>
<tr>
<td><strong>Coach</strong></td>
<td>Can train others in the Standard Operation.</td>
<td>Can work to the Standard Cycle Time or quicker</td>
<td>Can train others to the required specification.</td>
<td>Can train others in the quality standards.</td>
</tr>
</tbody>
</table>
### Example of Comparison Std Times

- **Example:** A Drilling Skill could consist of the following procedures:

<table>
<thead>
<tr>
<th>Cycle Time</th>
<th>Standard</th>
<th>Tom</th>
<th>Dick</th>
<th>Harry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Safety Checks</td>
<td>60 sec</td>
<td>65 sec</td>
<td>60 sec</td>
<td>95 sec</td>
</tr>
<tr>
<td>Drill Bit Attachment</td>
<td>40 sec</td>
<td>50 sec</td>
<td>40 sec</td>
<td>75 sec</td>
</tr>
<tr>
<td>Marking Up</td>
<td>180 sec</td>
<td>175 sec</td>
<td>175 sec</td>
<td>300 sec</td>
</tr>
<tr>
<td>Initial Hole Set-up</td>
<td>60 sec</td>
<td>65 sec</td>
<td>55 sec</td>
<td>85 sec</td>
</tr>
<tr>
<td>Alignment</td>
<td>100 sec</td>
<td>120 sec</td>
<td>95 sec</td>
<td>160 sec</td>
</tr>
<tr>
<td>De-burring/Swarf Cleaning</td>
<td>60 sec</td>
<td>65 sec</td>
<td>55 sec</td>
<td>75 sec</td>
</tr>
<tr>
<td>Post Safety Checks</td>
<td>60 sec</td>
<td>60 sec</td>
<td>60 sec</td>
<td>90 sec</td>
</tr>
<tr>
<td>Tool Maintenance</td>
<td>300 sec</td>
<td>350 sec</td>
<td>290 sec</td>
<td>450 sec</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>860 sec</td>
<td>950 sec</td>
<td>830 sec</td>
<td>1340 sec</td>
</tr>
</tbody>
</table>

\[1.5 \times \text{Standard} = 1290 \text{ Seconds} \]

**1.5xStd**  Std  \( >1.5\times\text{Std} \)

What Skill Level do they have (assuming they have done the jobs safely & to the correct quality first time)?

- Practitioner
- Developer
- Learner
What is a Skills Matrix Used for?

• To establish all skills required in an area or team.

• To visually share information.

• To quickly identify current available skills and future requirements.

• To examine where our strengths & weaknesses are.

• As a day to day planning tool to use skills where they are most needed.

• As a planning tool to organise adequate cover for holiday & sickness.

• If done fairly, to keep employees motivated & reduce boredom.

Continued, Please Turn Over....
What is a Skills Matrix Used for?

• It highlights training needs for our most important resource….our employees.

• To monitor & control training effectiveness.

• To increase flexibility by allowing people to master a broad range of skills.

• To drive improvements as part of a Visual Management System (VMS).

• To increase the effectiveness of an area and the entire business.

• To match the demands of the business.
How Skills Matrices Focus Training Plans

• It highlights training needs for our most important resource….our employees.

• To monitor & control training effectiveness.

• To increase flexibility by allowing people to master a broad range of skills.

• To drive improvements as part of a Visual Management System (VMS).

• To increase the effectiveness of an area and the entire business.

• To match the demands of the business.
How to Develop a Skills Matrix

- Establish all tasks required in the team or area.
- Establish all the team members.

Make visual on the skills matrix the ability or competency for each team member against each task.

- Develop all procedures for all tasks.
- Define skills required for each task.
- Define level of ability/competency.
- Define how we measure performance.

Measure team members against procedures & performance measures.
How Skills Matrices Drive Improvements

- Improve the Procedures based on the learning.
- Retrain the team members.
- Get a team together to focus on improving the procedure.

- Define “Benchmark” Procedures - this should have been achieved when formulating the skill.
- Do a Kaizen activity to improve the procedure.

- Evaluate if a Procedure has not been improved for a while.
- Check effectiveness of the “Benchmark”

- Train all team members with the Procedures.
Monitoring and Control of Plans

- Troubleshoot abnormalities from the standard.
- Introduce new improvements & re-train.
- Review & update Personal Development Plan.

- Assess performance & compliance against procedures - Do “Gap” Analysis.
- Assess improvement against training & development plans - Do “Gap” Analysis.

Define a schedule for re-assessment of the tasks or Work Instructions.

Conduct review of Work Instructions with a selection of team members.
Illustrating Gap Analysis for a KPI

- **CURRENT STATE**
  - 20 Points
  - 20 Employees
  - 80 Points Potential
  - 80 Points Potential
  - 25% Skill Level

- **FUTURE STATE**
  - 40 Points
  - 20 Employees
  - 80 Points Potential
  - 80 Points Potential
  - 50% Skill Level

(Potential Performance Graph in Points)

(Potential Performance Graph in %)
Illustrating Gap Analysis for a KPI

- How to Develop a Skills Matrix
- Monitoring & Control of Plans
- How do Skills Matrices Drive Improvements
- Goal
Skills Matrix Standard Format

<table>
<thead>
<tr>
<th>•Team/Area:</th>
<th>•Team/Area Leader:</th>
<th>•Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skills/Tasks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Name</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Skill Level Key</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Un-Trained</td>
<td>- Learner</td>
<td>- Practitioner</td>
</tr>
</tbody>
</table>
Who Should Own the Skills Matrix?

• It depends on what information it is visualising:

  – **Team Leader**: This should visualise the information relevant to their own team.

  – **Cell Leader**: This should visualise the information relevant to the cells under their control.

  – **Manager**: This should visualise the information relevant to their areas of responsibility.

  – **Head of Business**: This should visualise the information relevant to their areas of responsibility.
### Example of Team Leader Skills Matrix

<table>
<thead>
<tr>
<th>Team/Area:</th>
<th>Station 1</th>
<th>Team/Area Leader:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills/Tasks</td>
<td>Name</td>
<td>Skills/Task</td>
<td>Score</td>
</tr>
<tr>
<td>• Milling</td>
<td>• Tom</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>• Drilling</td>
<td></td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>• Deburring</td>
<td></td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>• Grinding</td>
<td>• Dick</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>• Painting</td>
<td></td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>• Riveting</td>
<td>• Harry</td>
<td>35</td>
<td>72</td>
</tr>
</tbody>
</table>

**Skill Level Key**
- Un-Trained
- Learner
- Practitioner
- Developer
- Coach
Example of Cell Leader Skills Matrix

<table>
<thead>
<tr>
<th>Team/Area:</th>
<th>Assembly</th>
<th>Team/Area Leader:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills/Tasks</td>
<td>Station1</td>
<td>Station2</td>
<td>Station3</td>
</tr>
<tr>
<td>Name</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Shift</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B Shift</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C Shift</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills/Task</td>
<td>9</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Score</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Skill Level Key</td>
<td>Un-Trained</td>
<td>Learner</td>
<td>Practitioner</td>
</tr>
</tbody>
</table>
## Example of A Managers Skills Matrix

<table>
<thead>
<tr>
<th>Team/Area:</th>
<th>Assembly</th>
<th>Team/Area Leader:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills/Tasks</td>
<td>Name</td>
<td></td>
<td>Name</td>
</tr>
<tr>
<td>• A Shift</td>
<td>• B Shift</td>
<td>• C Shift</td>
<td>• Skills/Task</td>
</tr>
<tr>
<td>• A Shift</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>• B Shift</td>
<td></td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>• C Shift</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>• Skill Level Key</td>
<td>• Un-Trained</td>
<td>• Learner</td>
<td>• Practitioner</td>
</tr>
<tr>
<td>• Un-Trained</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Learner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Practitioner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Developer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Coach</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Up keep of a Skills Matrix

• Is should be handwritten!!!
  • Having a computer generated standard format is fine.

• What if someone does not do a job for a while, do they keep the same skill level?
  – Their Skill Level should be frozen, pending an assessment of the skill in question.
  – The skills matrix should indicate that the person needs to be assessed beside the skill in question.
  – A date should be agreed with the employee when they are going to be re-assessed.
  – After the assessment, the skills matrix should be updated.
Purpose of Module

To enable attendees to visually recognise varying levels of ability in a structured way. To develop focused training plans to maximize flexibility and to enhance the development of every individual.

Did we?