Baking Industry Forum

June 21, 2013

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Today at BIF

The 5 P's of Training

- PROBLEM – Speaks to a global audience
- PREPARATON – Speaks to vendors
- PRESENTATION – Speaks to vendors
- PERFORMANCE – Speaks to Safety
- PRESERVATION – Speaks to sustainability

Problem

Background

- 2013 BIF Panel identified employee training and retention as a critical issue facing the industry-
- How do you find and retain employees who will follow in our collective footsteps- both as bakers and suppliers to the industry?
- BIF conducted a survey of ABA and BEMA members to define where problems exist today.
- Focus on specific skill sets:
  - Bakers- Production, Sanitation, Packaging, Shipping, and Maintenance
  - BEMA- Engineers, Service Technicians, and others involved in customer support

Findings

- Healthy age distribution for both bakers and vendors
- Turnover is significant in key skill sets, key employee retention is important
- Five year look ahead indicates a shortage of plant maintenance personnel and a shortage of service technicians
  - Those that maintain your equipment and those that service it form the vendors will be in short supply

Findings

- Bakers' Training sources include vocational schools, AIB and vendors
- Vendors' Training includes internal seminars, AIB, and colleges
  - Importantly, a key issue for the Bakers was that the Vendors are sending trainers who have not been trained as trainers.
- Recruiting methods are fairly conventional
  - Hire the veteran was identified as an often overlooked source for good employee candidates

Summary

- Skill positions will be in higher demand.
  - Competitive marketplace for manufacturing skills
- Plant Maintenance and Service Technicians will have the greatest shortage in five years.
  - Big impact on who will run your plants and who will train them to maintain the equipment that keeps you running
- Packaging, Production and Service Technician positions will have the most immediate demands.
  - Each new employee will need specialized training

Recommendation

- Implement a Sustainable Training Program
  - A Training Program established to enable the trainee to attain and maintain the required skills to perform effectively

- Why is a Sustainable Training Program Important?

- According to Towers Watson, Companies who Do Training Right:
  1. Achieve 26% higher revenue per employee
  2. Are 109% more capable of retaining high performers
  3. Are 92% better at responding to economic conditions, and
  4. Are 144% better at planning for future talent needs

- Sustainable Training Programs start with good Preparation

Preparation

Preparation

- Prepararation requires information.
  - Who?
  - What?
  - When?
  - Where?
  - How?
- Suppliers should send out a document asking for these details.
- It should have specifics like Quantity needed and Time required.

Who needs to be on hand for Training?

- Which departments are going to use the new equipment?
  - Operations (Production)
  - Maintenance
  - Sanitation
  - Management
  - Shipping
  - Administration
  - Information or Tech departments
  - Sales
- Each departments' employee quality, experience, turnover, language skills, and education affects training results.

Understand the Audience and The Application to Create Best Training

- Operator - Production
  - Equipment and task-based training.
  - Quick Tutorials.
  - Intuitive Controls and HMIs.
- Mechanics and Controls Techs
  - Experts on Equipment.
  - Troubleshooting.
  - Preventive Maintenance (Have PM plan from supplier).
- Sanitation
  - Cleaning
  - Lockout
  - Operation
- Supervisor - Baker
  - Process-based.
  - Knowledge of product impact.

What Training Tools are Needed?

- What are the media capabilities and facilities at the plant?
  - Lecture – Time and location.
  - Audio/Visual Equipment and Internet access.
  - Simplified Controls and HMIs.
- Printed Materials such as:
  - Manuals
  - Troubleshooting Lists
  - Spare Parts recommendations.
  - Phone numbers for technical service.
  - Website addresses for manuals and parts lists.

What Works?

- Small sessions for lectures, 30 to 40 minutes.
- Individual attention and group attention.
- Interactive Training: Observation, Correction, Repetition, Hands-On.
- Covering specific situations: Emergencies, Breakdowns, Safety, Lock Out procedures.
- Question and Answer: trainer and trainee.
- Manuals for high skill departments.
- Simple controls, HMI, Push Button for lower skill departments.
- Video, CDs, Online Videos, Step-by-Step Procedure lists, troubleshooting.

Does Not Work

- Not scheduling adequate time for training.
- Equipment does not perform according to training.
- Training misses common use or situation.
- Lecture without hand out, manual, or take away material.

Presentation

Integrating Training for Successful Outcomes

GOALS (Outcomes) FOR ANY TRAINING

- SAFETY – Minimize risk and maximize safe work environment
- Production of quality products that are safe to eat
- Equipment reliability/avoidance of downtime
- Optimizing install and productivity – short ramp-up times
- Maximizing useful life of assets – machine care
- Customer / Vender build-up of relationships and trust

“Integrating” Training

- Early Inclusion – Don’t wait for install or start-up
  - Hourly operators and Mechanics should be part of project teams
  - Early understanding of the equipment/process
  - Input creates ownership
  - Inclusion at Factory Acceptance Tests, etc
- Forward Training
  - Does equipment exist elsewhere?
    - Train at other plant, supplier shop, classroom/video
- Train the Trainer / Subject Matter Experts
  - Creates long term continuity
  - AIB “Train the Trainer” course

TO: Equipment Suppliers

- Train technicians to train others
  - Many are terrific technicians, but most are poor teachers
  - If tech is not good teacher, make other arrangements for customers (2nd person on site)
- Insist on dedicated training time outside of production time
  - Especially for maintenance and controls techs
- Manuals need to be complete and included in training
  - Preventive Maintenance guidelines with historical accuracy
- Consider language Barriers / Communication Skills
- Bakers sometime reluctant to pay for training if quality is of concern
  - Bakers will pay for good trainers!
- Develop materials for standard equipment (Videos)
- Formal Training for Training – AIB Train the Trainer

Adult Learning Theory

- Help learners connect what they already know to new information
- Approach topics from different angles
- Teach to multiple learning styles
- Build in time to practice new skills
- Incorporate activities and exercises directly applicable to the job
- Divide content into instructional units, and develop lesson plans
- Build in assessments to assure learning has been achieved.
- Establish objectives, focusing on the “need to know”

Performance

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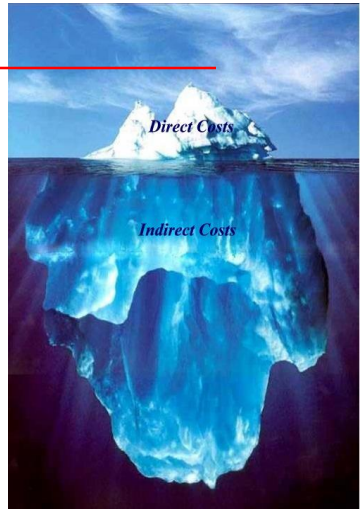
Workers' Comp Claim

Injury



Direct Costs

- Medical
- Medical Management
- Indemnity
- Bill Review
- Litigation Expense
- Other Expenses

Indirect Costs

- Employee's family
- Loss of Productivity
- Management Resources
- Loss Conversion
- Conversion Factor
- Assessments
- Insurance Rates

Compliance Vs. Compliance Plus

Compliance

- Protects reputation
- Focus on compliance
- Protects reputation
- Limited participation
- Reactive

Compliance + Injury Reduction

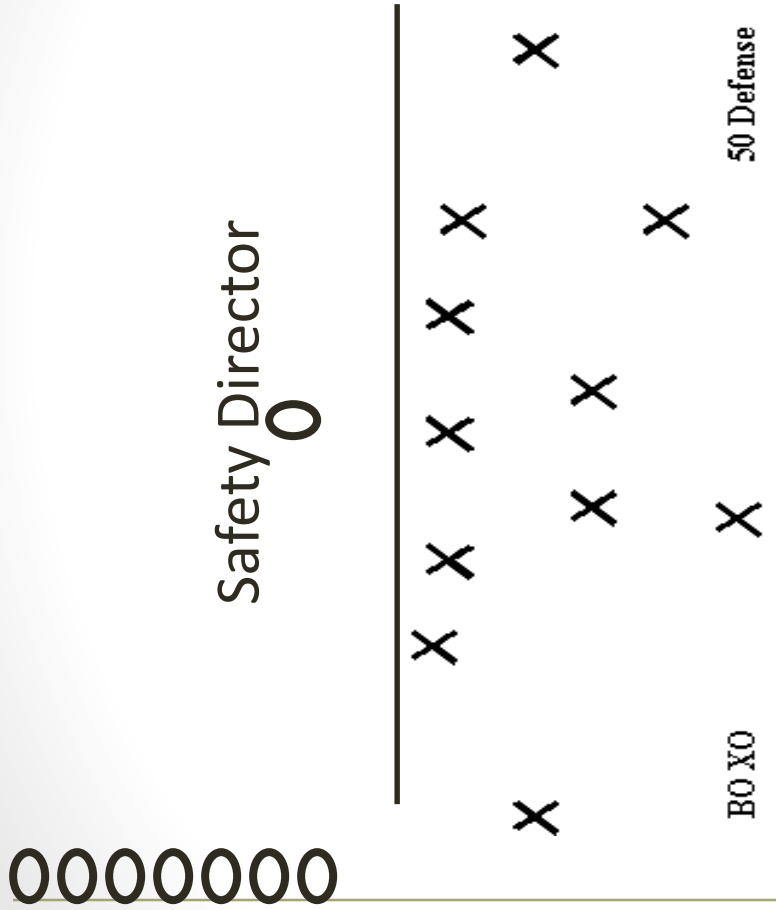
- Reduces injuries & cost
- Focus on unsafe acts
- Top down participation
- Proactive driven by **action**

Unsafe Conditions = 10% of injuries

Unsafe Acts = 90% of Injuries

Compliance or Compliance Plus?

Compliance Structure



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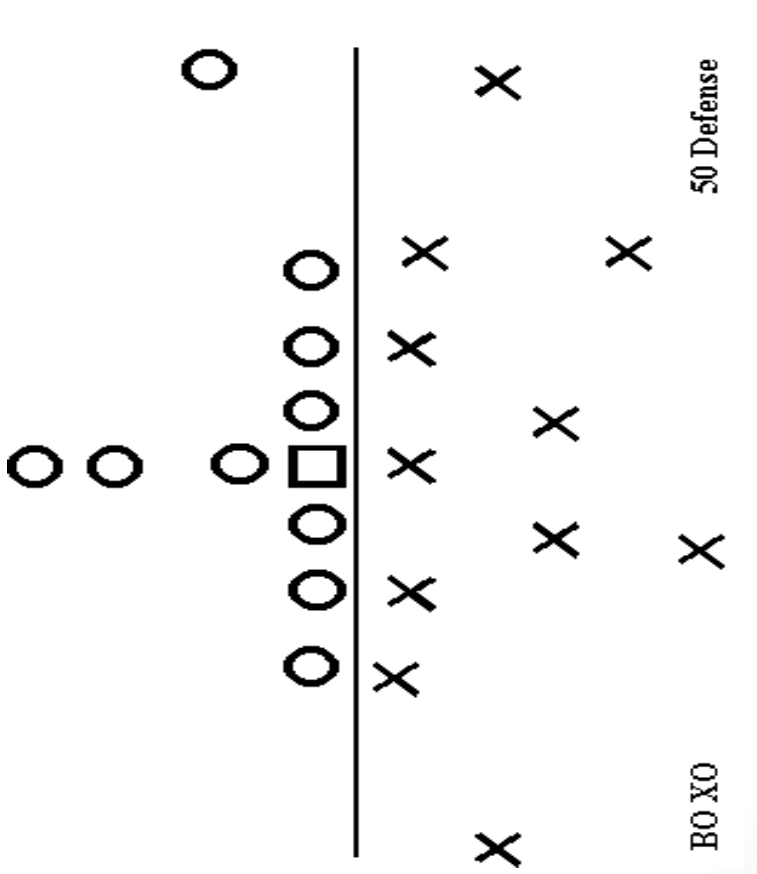
10% Management Involvement

Compliance Plus Structure



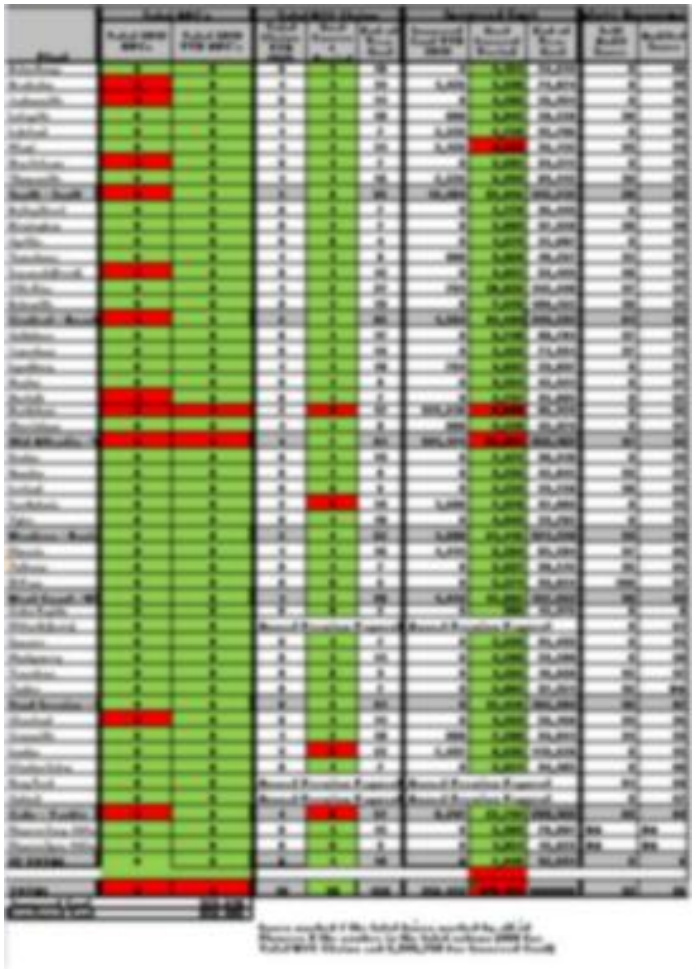
100% Management Involvement

Compliance Plus – No ABC Program

- Safety Scorecard - Key metrics reviewed every period
  - ABC (amputation/break/crush) injuries
  - Claims
  - Incurred cost
  - Audit score
  - Red or Green
- Safety Alerts developed for all ABC injuries
  - Distributed to all facilities so actions can be taken
  - Shared with all employees as a learning tool
- ABC Toolbox Talks (Supervisors conduct training)
  - Reviews a past ABC incident
  - Supervisor sets the expectation by talking about behaviors / decisions employees can make to avoid a similar incident.

Safety Scorecard

- Key Safety Metrics
- Green/Red easy to read dashboard
- Reviewed once per period
- Proactive tool to identify where potential opportunities exist before large losses occur.



Safety Alerts

- Developed for all ABC injuries
- Sent to leadership and all facilities
- Posted and reviewed with employees
- Provides an opportunity to avoid the injury at another facility

SAFETY ALERT # 5

No ABC's in 2013 (Amputations, Broken Bones & Crush Injuries)

Description of Event:

An employee was making adjustments to a belt when the power was on and it was running. He noticed the belt was full of dough on the back side (underneath side) and reached into the belt to clean off the dough. The dough caught his hand and pulled it into the roller causing a fractured wrist.

Identified Causes: Unsafe act, failure to follow safety procedures

Root Cause – Reaching into moving equipment

Contributing Cause – Newer employee, 6 months on the job.

Corrective Actions Taken:

Action Item	Target Date	Open / Closed
Complete retraining on conveyer safety & tracking belts	3/28/13	Closed
Review engineering procedures for working on energized equipment	3/28/13	Closed

ABC in Action

- 5 to 10 min safety meetings called ABCs in Action Supervisor Safety Talks.
- Designed to be delivered by supervisors to employees but can be delivered in many ways.
- Instruction sheet, sign off, and one page tool box talk.
- One provided each month for each facility to use.

Learning Objective – Keep hands in your line of site and know where your feet are to avoid injury.

Consider this example scenario.

- Employee forgot his rag when he was on the other side of the conveyer
- Reached across the conveyer to get the rag off the guide, which was just out of his reach
- He bumped the rag, it fell behind and guide, he could not see it but he could touch it with his finger tips.
- He swayed forward trying to grab it and lost his footing
- His finger got caught by the conveyer belt and fractured one finger

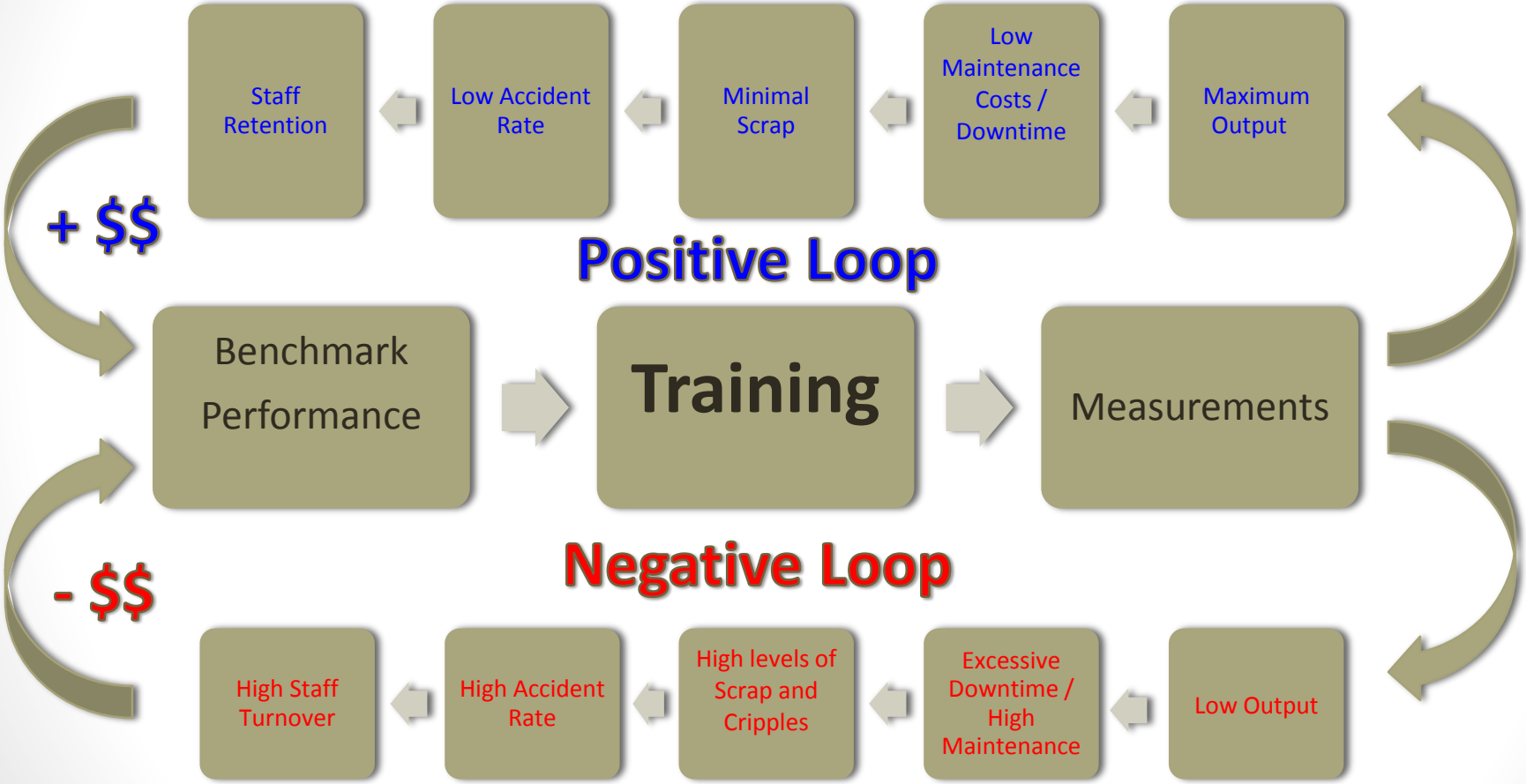
What are potential causes of this type of accident? (Supervisors – use the below as talking points)

- Reaching across the conveyer ? ..... Unsafe Condition or **Unsafe Act**
- Reaching behind a guid for something he could not see? ... Unsafe Condition or **Unsafe Act**
- Swayed forward trying to grab the rag ? ..... Unsafe Condition or **Unsafe Act**

What Would You Do Differently? (Have employees talk about the actions they could take to avoid injury and ***set your expectation of what you expect*** them to do)

- Take the extra time to walk around the conveyer.
- If anything ever falls out of site do not reach into a blind area when working around machinery.
- Keep your mind on your footing: think about your balance. When you are stretching to reach something you are off balance and can slip/fall before you know it.

Performance / Measurement of Training



AB's New Bakery Bread Line

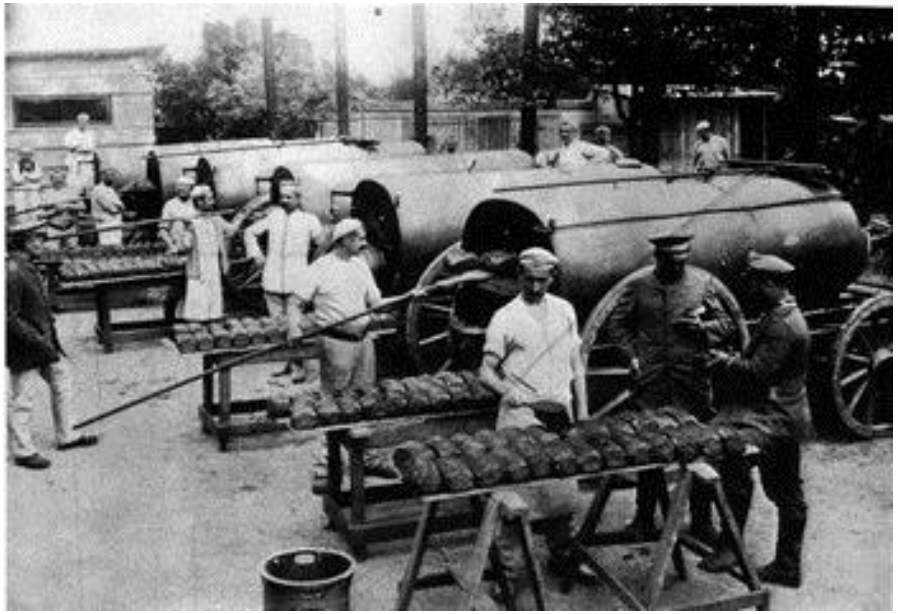
- AB, a craft baker who needs to expand his production. He buys his line from BEMA the best vender he knows of.
- He can afford the equipment and building extension but does not have the budget for training his staff on the new line.
- BEMA is happy to win the order and doesn't explain to AB the need to train his staff on the new technology.
- AB understands plant efficiency and determines his bakery investment payback (ROI) on the following basis.

AB's Assumptions

- The equipment is designed for an output of 150 loaves/min.
- It will operate over 3 shifts, 24 hours/day, 6 days/week (1 day for maintenance and sanitation) 50 weeks/year. (2 weeks for shut down).
- He plans for 10 product changeovers per day of 15 minutes each and allows 2.5 hours/day for this calculation.
- He expects some scrap and expects 98% good product.
- The output which AB based all his projections and ROI calculations on are.
- 150 loaves/min x 60 min/hour x 21.5 hours/day x 6 days/week x 50 weeks/year x 98% = **56,889,000 loaves/year.**

Line Output

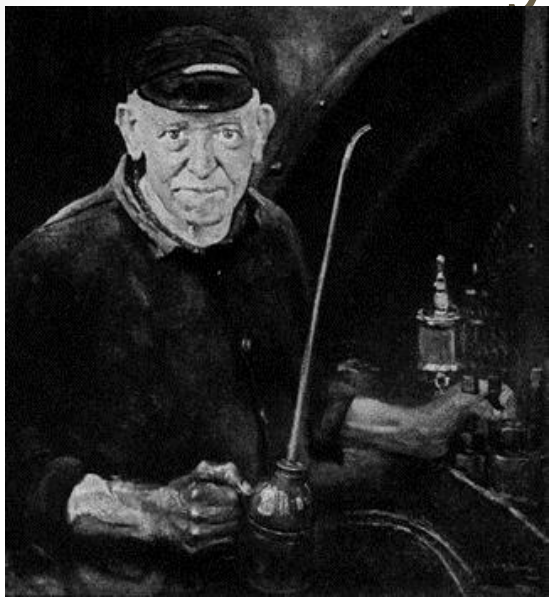
- The BEMA supervisor gets the line running but is not asked to stay and train.
- The line is not optimized.
- So, average output is 140 loaves/min not 150 loaves/min.



Impact

- 10 loaves/min x 60 min/hour x 21.5 hour/day x 6 days/week x 50 weeks/year x 98% = **(3,792,600) loaves/year lost.**

Availability / Up Time



- The Maintenance Chief is not as experienced as he could be at problem solving on the new line.
- Unplanned downtime / stoppages 30 min/every day on 3rd shift.

Impact

- 150 loaves/min x 30 min x 6 days x 50 weeks x 98% =

(1,323,000) loaves/year lost.

- Product changeovers take longer than planned – 20 minutes instead of 15.

Impact

- 150 loaves/min x 5 min x 10 hours/day x 6 days x 50 weeks x 98% =

(2,205,000) loaves/year lost.

Scrap

- Proofer humidity is out of control.
- Slicer operators can't handle bag changes
- Product backs up and falls of at Cooler
- 2% more scrap than expected.

Impact

- 150 loaves/min x 60 min x 21.5 hours x 6 days x 50 weeks x 2% = **(1,161,000) loaves/year lost.**

End Result

- AB's financial investment was based on **56,889,000 Loaves/Year**.
- What he achieves is:
  - 140 Loaves/Min x 60 Min/Hour x 20 Hours/Day x 6 Days/Week x 50 weeks/year x 96% = **48,384,000 Loaves/Year.**
  - 15% less production and sales than AB planned but at the same cost.

- This is a theoretical example.
- Training is / should be an implicit part of a plant start up and ongoing operation.
- From a ROI viewpoint the impact of training will be seen in throughput, downtime, maintenance cost and scrap.

Preservation

Sustainable Training

What is Training?

Organized Activity aimed at imparting information and/or instructions to improve the recipient's performance or to help him or her ***attain and maintain*** a required level of knowledge or skill.

So How do we maintain the skills and keep it relavent?

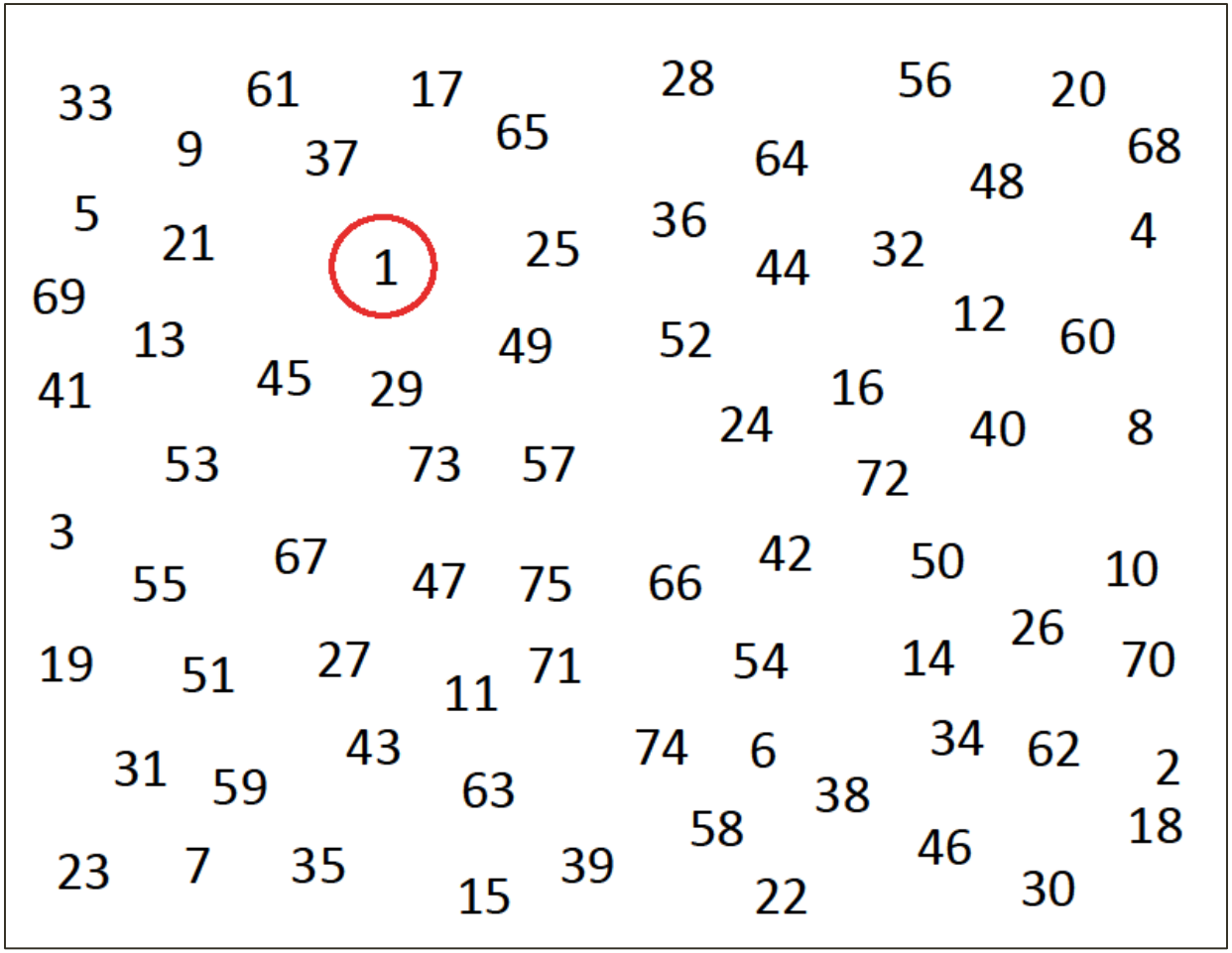
Sustainable Training

- Why sustaining training Important?
  - According to Towers Watson companies who do Training right:
    1. Achieve 26% higher revenue per employee
    2. 109% more capable of retaining high performers
    3. 92% better at responding to economic conditions
    4. 144% better at planning for future talent needs

The Business Side

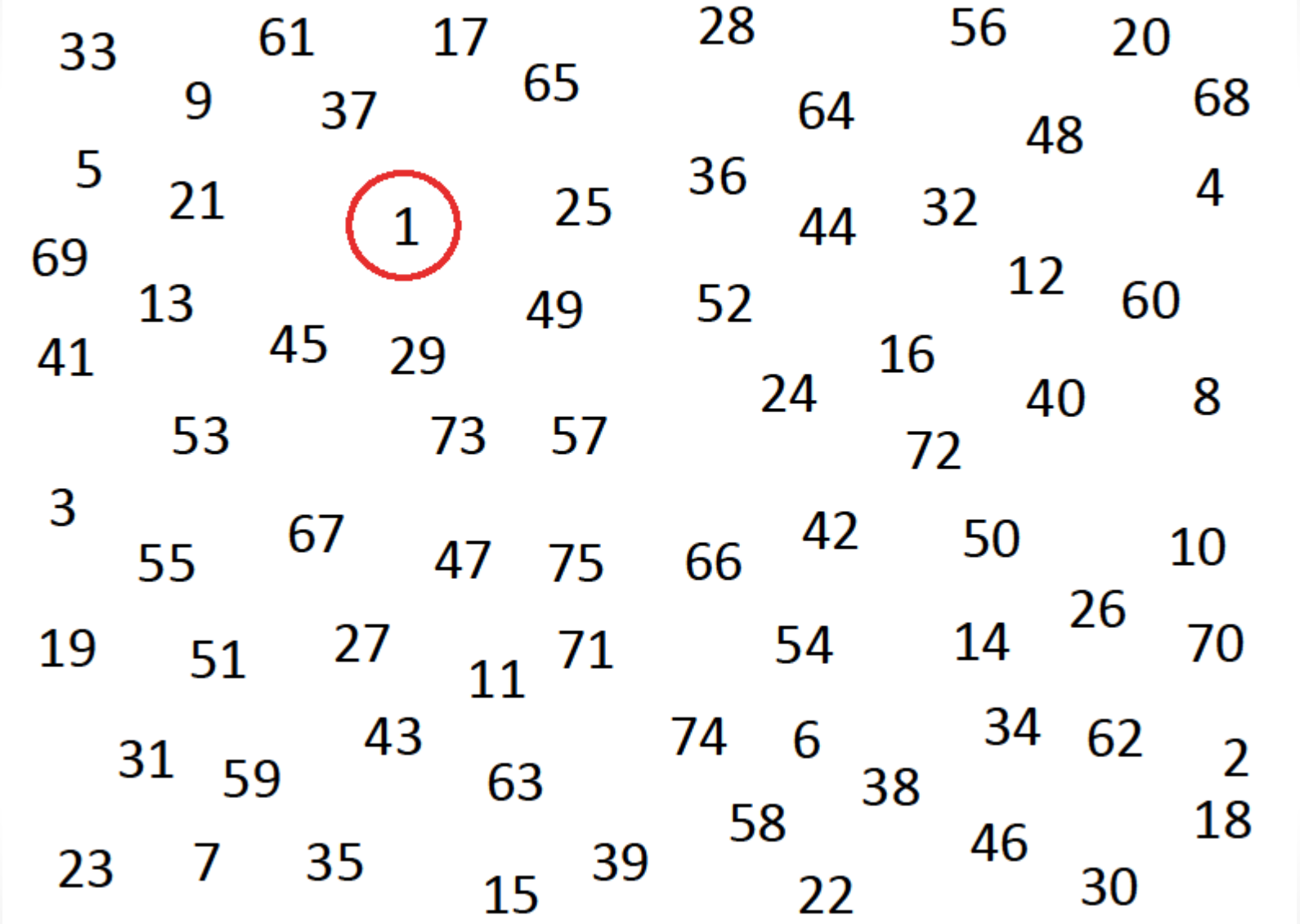
- **Improves morale of employees-** Training helps the employee to get job security and job satisfaction. The more satisfied the employee is and the greater is his morale, the more he will contribute to organizational success and the lesser will be employee absenteeism and turnover.
- **Less supervision-** A well trained employee will be well acquainted with the job and will need less of supervision. Thus, there will be less wastage of time and efforts.
- **Fewer accidents-** Errors are likely to occur if the employees lack knowledge and skills required for doing a particular job. The more trained an employee is, the less are the chances of committing accidents in job and the more proficient the employee becomes.
- **Chances of promotion-** Employees acquire skills and efficiency during training. They become more eligible for promotion. They become an asset for the organization.
- **Increased productivity-** Training improves efficiency and productivity of employees. Well trained employees show both quantity and quality performance. There is less wastage of time, money and resources if employees are properly trained.

Training Exercise



Training Exercise

- Keep the Numbers Sheet turned over.
- Start with the circled number 1
- Circle as many consecutive numbers as you can. 1-2-3-4-5…….
- 30 seconds.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5 36 4
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41 45 29 16
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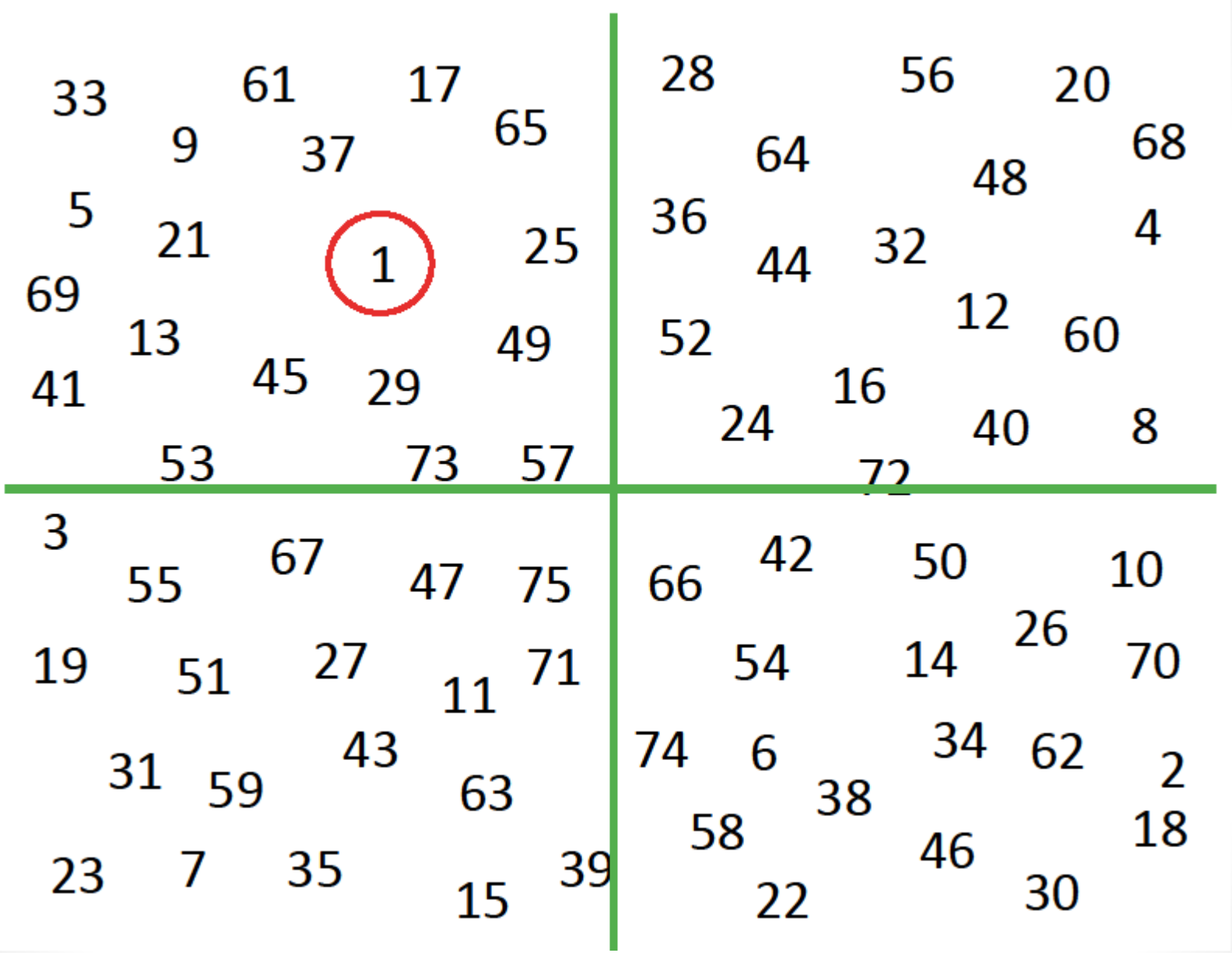
67 42 50 10
55 47 75 66
26
19 51 27 71 54 14 70
11
43 74 6 34 62 2
31 59 63 38
58 18
23 7 35 39 46
15 22 30

Training Exercise

- How many numbers did you find?

- Now let's really get Trained!

1. Fold the paper in half.
2. Fold the paper in half again.
3. Now in quarters.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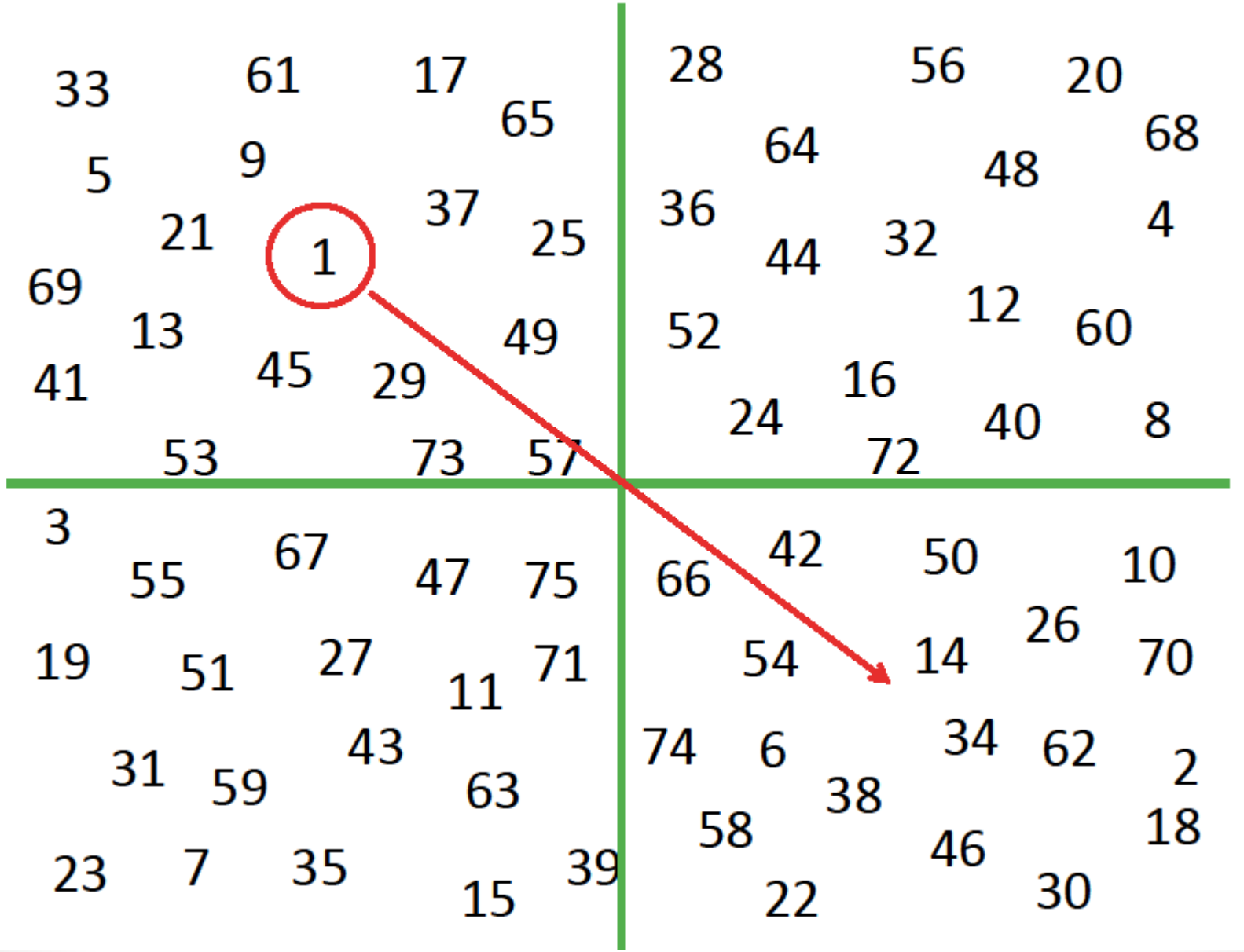
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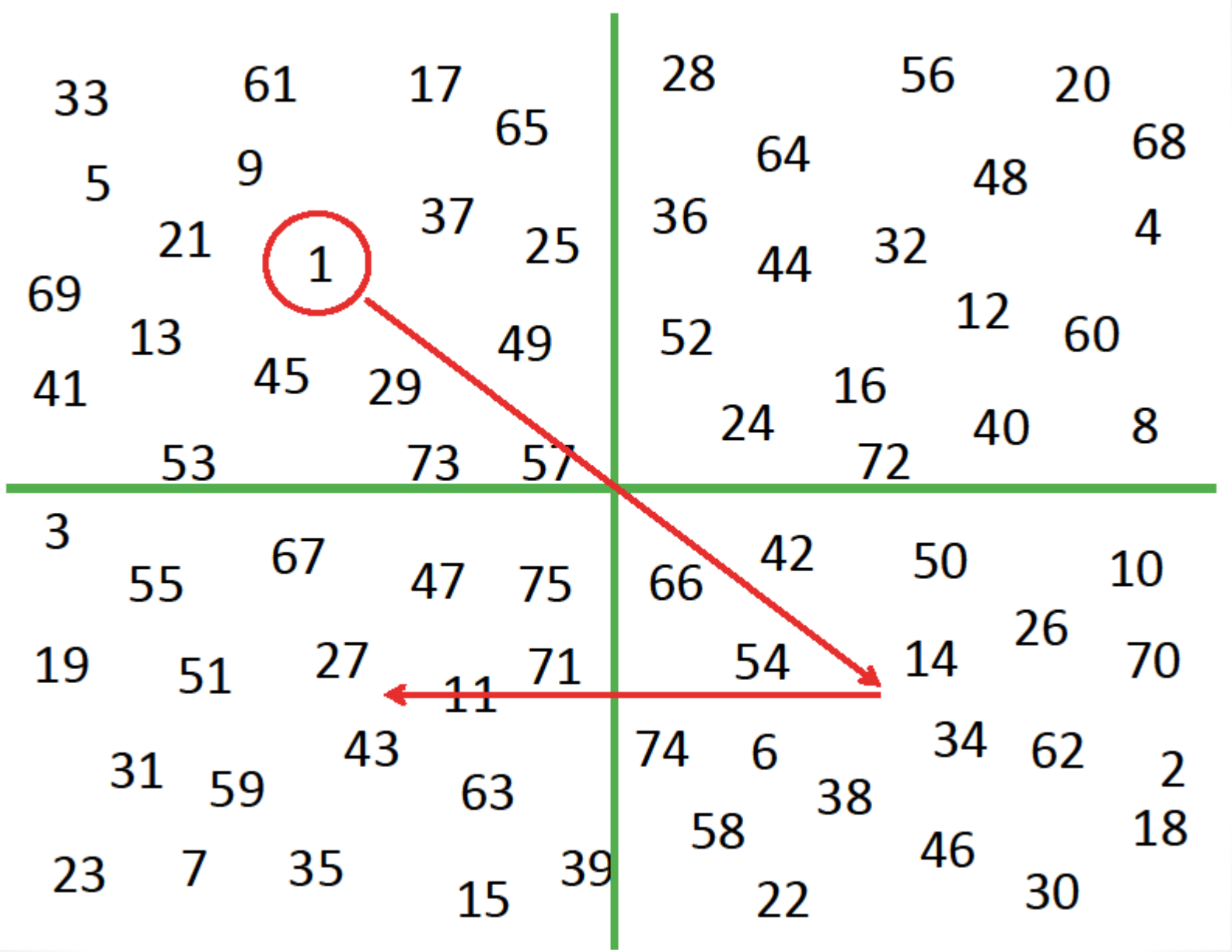
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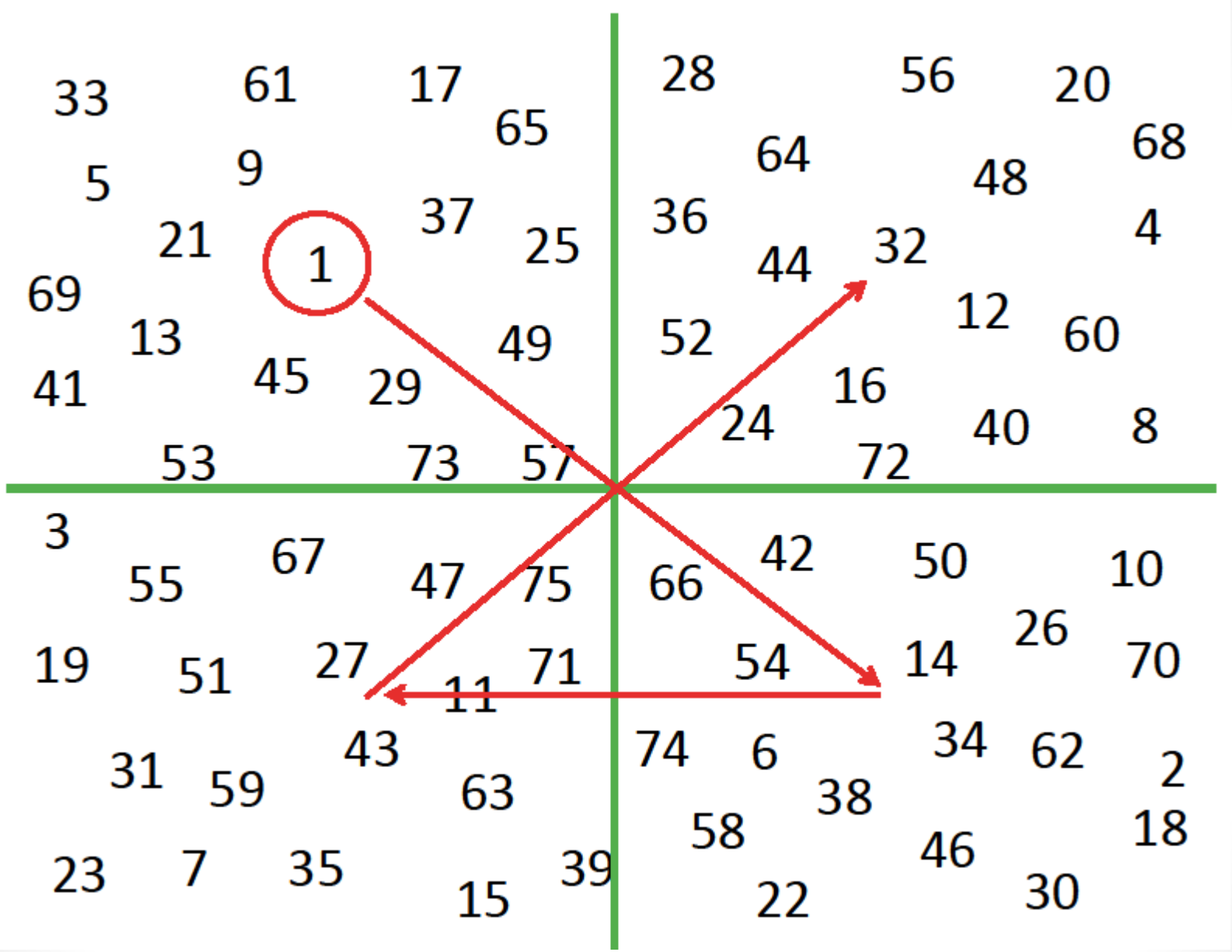
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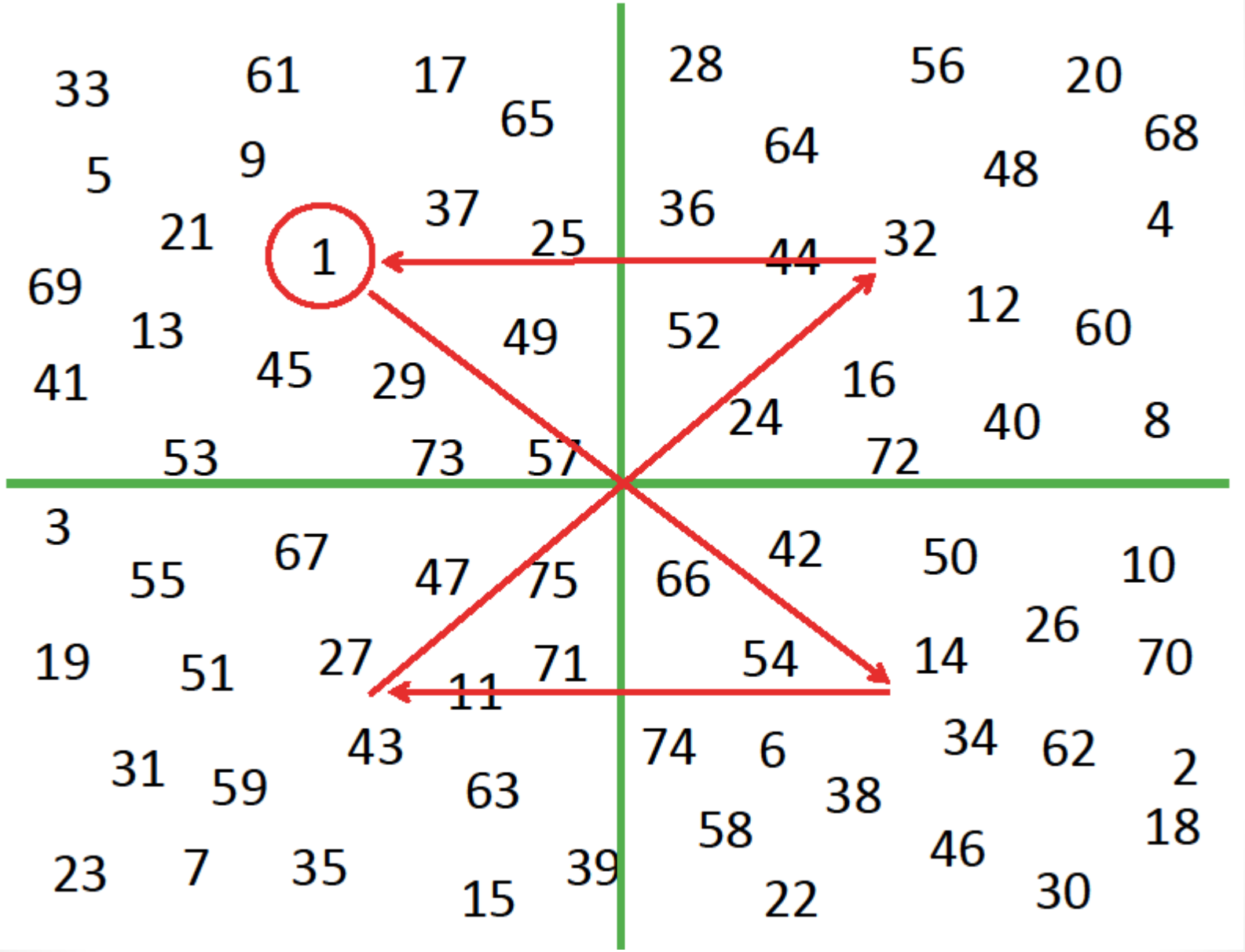
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55 47 75 66 10
26
19 51 27 71 54 14 70
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15 22 30

Training Exercise

- You now have 30 seconds to link consecutive numbers.
- Now how many numbers did you find this time?
- This is the difference between being told what to do, and shown how to do it.
- You have now been TRAINED!!

How do we Sustain Knowledge?
What are our Options?

- Training videos, apps & documentation
- Continual updates, Online or electronically
- Upgrade plant technology such as handhelds or tablets loaded with equipment maintenance & training information
- Plant testing of operators to gage their understanding

Methods of Communicating the Information

- Videos taken during startup or SOP video provided by vendor
- Electronic Tablets with App specific updates
- Training & Maintenance Instruction Cards attached to equipment
- Written manuals with photos
- Periodic Webinars explaining upgrades and new technology

Cost

Training is not cheap to develop or sustain but the alternative is even more expensive.

- Professional Videos run $2,000 per finished minute (includes narration & graphics)
- Apps are $150/hr. to develop & generally cost between $35,000 to $200,000
- To help offset these costs vendors could charge an access fee for this info on their website.
- Vendors would differentiate themselves with this capability

Whose Responsibility?

- Training is a partnership between the customer and the equipment provider
- Customers must make this a priority during the vendor selection process
- The vendors must realize the value added in order to make the initial investment

Making it Relevant

- Training operators is an on-going Task
- Requires :
  - Commitment from plant operation
  - Commitment from Equipment and System Vendors
  - Commitment to continually update
- The cost of not Committing is enormous!!

What we covered today

- The PROBLEM is faced by all of us in the industry, bakers, equipment suppliers, ingredient suppliers and other service providers
- We learned that PREPARATION is the key to successful implementation
- How training is PRESENTED to the end users is extremely critical to how well the educational exchange sticks
- We covered how high quality training leads to increased PERFORMANCE and worker safety and engagement
- When we get through the first four P's successfully, we know that our retention rate and investment in training will PRESERVE our workforce.

…Also

- So….
  - the cost of training is big dollars out
  - the benefits from training are big dollars in
  - ***But most importantly, when you have workforce that stays for years, the value…..(one more P)……is***

PRICELESS

Q & A

Baking Industry Forum

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