

Doing More With Less – Identifying Opportunities for Efficiency

Practical strategies. Smarter systems.
Stronger schools.



CONTINUOUS
IMPROVEMENT



SMARTER
SYSTEMS



OPERATIONAL
EXCELLENCE

Welcome to our Doing More with Less Workshop

In this session, we will explore how to:



Identifying operational inefficiencies
that consume time and resources



Recognizing bottlenecks and process challenges
across district operations



Exploring practical continuous
improvement concepts
to streamline workflows and reduce frustration



Finding opportunities to improve efficiency
without requiring additional staff or resources

The Operational Reality Facing School Districts

School districts and educational service providers are under increasing pressure to maintain service levels while managing budget constraints, staffing shortages, enrollment changes, and growing operational demands.

When resources are limited, inefficient processes can quietly consume valuable time, increase costs, and place additional pressure on employees.



Audience Poll

Where does your district experience the most operational delays or frustration?





at The University of Texas Rio Grande Valley™



TMAC is an affiliate of the Manufacturing Extension Partnership (MEP) of The National Institute of Standards and Technology (NIST) which falls under the U.S. Department of Commerce. **TMAC** is hosted at The University of Texas Rio Grande Valley under the Division of Research and has been serving our community for over 20 years.



TMAC is a local resource available to address today's hyper-competitive business environment. Our main goal is to assist small to medium-sized U.S. manufacturing companies create and retain jobs, increase profits, become more efficient and ultimately save time and money. **TMAC** does this by providing open enrollment trainings and certifications in the areas of Lean, Quality, Six Sigma, Supply Chain, Safety, Strategic Planning, Smart Manufacturing, Cybersecurity and many more. **TMAC** also develops customized trainings depending on the customer's needs and provides consulting services.



MEP - MANUFACTURING
EXTENSION PARTNERSHIP



OUR MISSION

Empowering manufacturers.
Strengthening communities.



OUR FOCUS

Solutions that drive efficiency,
innovation, and growth.



OUR IMPACT

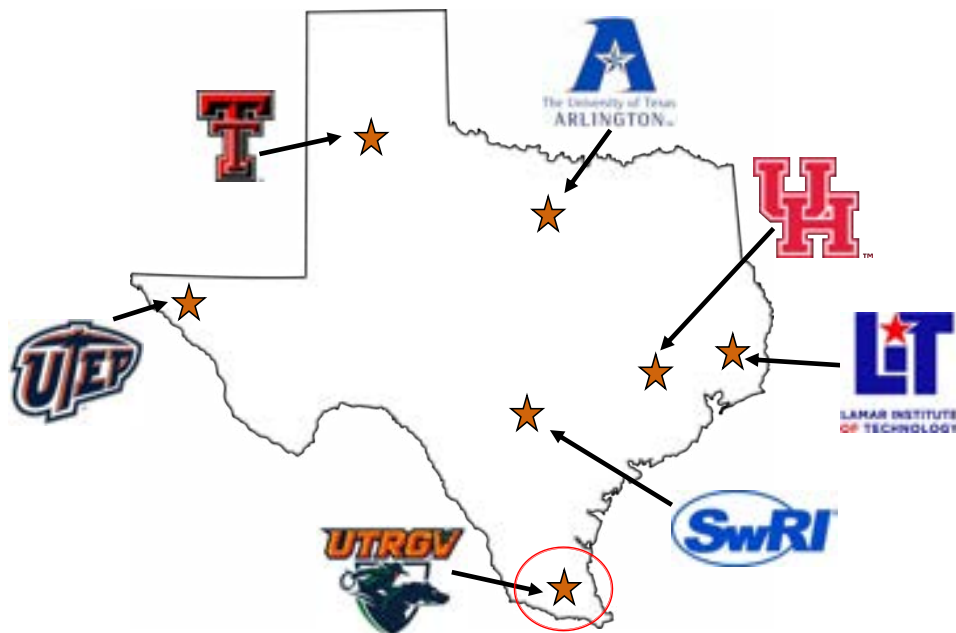
Building a stronger future
through manufacturing.



20+
YEARS

OF SERVICE, IMPACT, AND COMMITMENT
TO THE MANUFACTURING COMMUNITY.

TMAC Regions





STRONGER MANUFACTURING. STRONGER AMERICA.

The MEP National Network™ delivers proven solutions and expertise that help manufacturers grow, innovate, and compete.



● MEP CENTER LOCATIONS



BUILDING MANUFACTURING COMPETITIVENESS NATIONWIDE

TMAC South Texas

As a Trusted Business Advisor, we provide training and guidance to customers and partners in the areas of:

- Lean Manufacturing & Six Sigma
- Total Quality Management
- Supply Chain Management
- Basic Business Management & Strategic Planning
- and many more...





PROCESS IMPROVEMENT

Definition of a Process

proc•ess (pros'es) n. – A **repetitive and systematic** series of **steps or activities** where **inputs** are modified to achieve a value-added **output**

What is Process Improvement?

► Definition:

- Process Improvement is the systematic approach to enhance the efficiency and effectiveness of a process by identifying, analyzing, and improving existing workflows.

► Key Objectives

- **Increase Efficiency:** Streamlining processes to reduce waste and optimize resources.
- **Enhance Quality:** Improving the output quality by minimizing errors and defects.
- **Maximize Stewardship of Tax Funds:** Lowering operational costs by eliminating inefficiencies.



The Importance of Process Improvement

- **Build Resilient Operations:** Continuously optimizing workflows allows districts to maintain service excellence and adapt effectively despite shifting operational demands.
- **Adaptability and Innovation:** Enables organizations to quickly adapt to changes and embrace innovation.
- **Employee Engagement:** Involving employees in process improvement fosters a culture of continuous improvement and ownership.



The Importance of Process Improvement

- ▶ **Campus and Community Satisfaction:** Efficient processes lead to higher quality products/services, resulting in increased an improved capacity to support the classroom.
- ▶ **Financial Performance:** By reducing waste and optimizing resources, school districts can extract the most value from their funding





Lean Thinking

The foundation for continuous process improvement is the Lean Methodology.



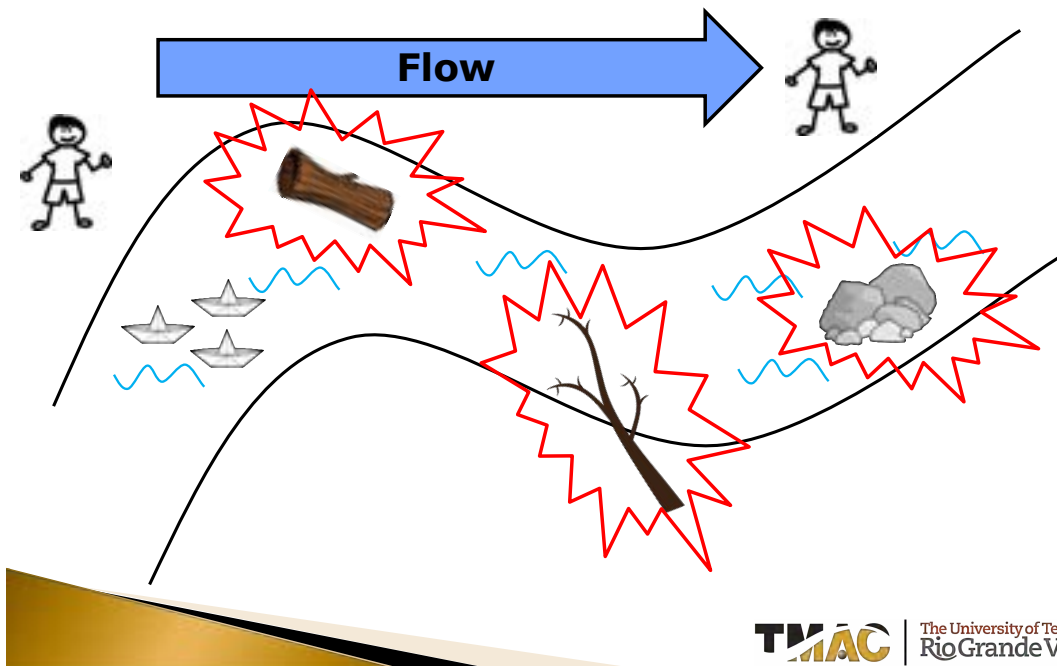
Lean

“A systematic approach to **identifying** and **eliminating waste** (non-value-added activities) through continuous improvement by **flowing** the product at the **pull** of the customer in **pursuit of perfection**”

-The MEP Lean Network

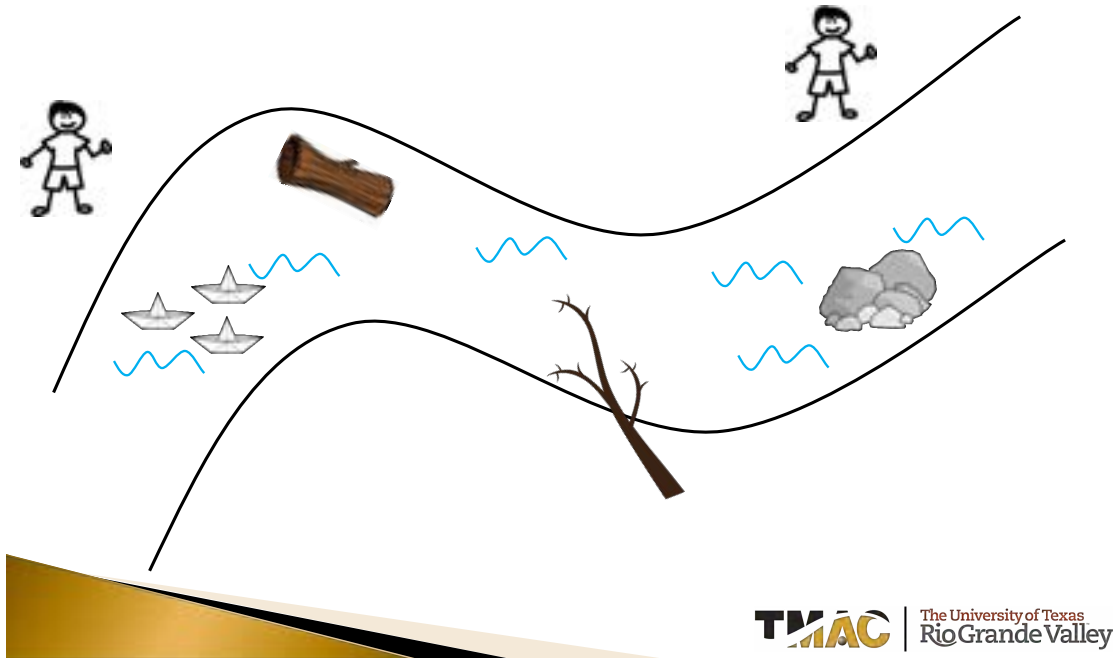
Example

What word would describe the movement of the boats down stream?



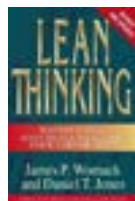
Example

LEAN is about identifying the obstacles or wastes in a process and working towards minimizing and ultimately removing them to improve any process



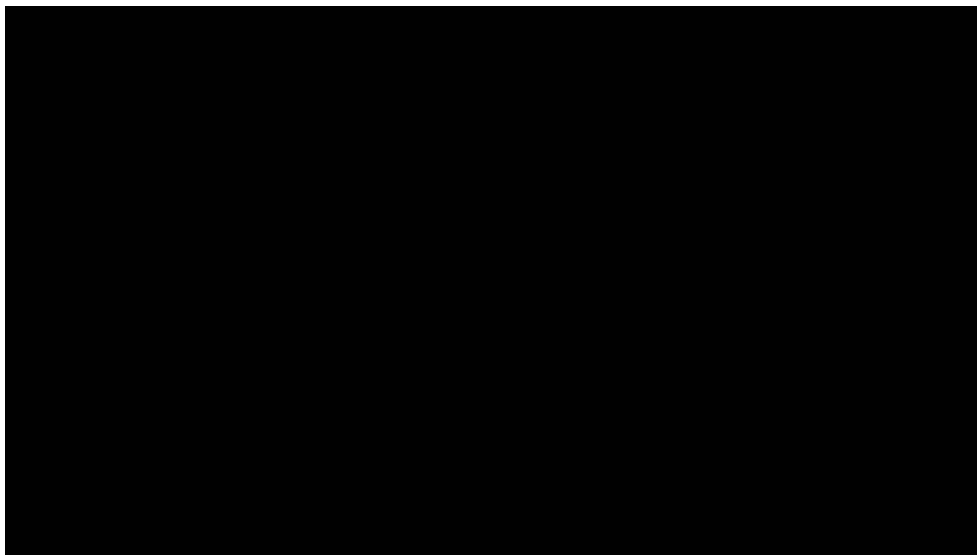
Recommended Readings

- ▶ Lean Thinking by Jim Womack
- ▶ Becoming Lean by Jeffrey Liker
- ▶ Lean for the Public Sector by Bert Teeuwen
- ▶ A Public Sector Journey to Operational Excellence by Eli Goldratt
- ▶ The Lean Six Sigma Pocket Toolbook by George, Rowlands, Price & Maxey



Please watch the next video and take notes of:

- ▶ Anything that stands out to you or that you find interesting
- ▶ What you think of the changes made
- ▶ Be ready to discuss



Discussion:

- What are your initial thoughts after seeing this video?
- What were the challenges faced by the organization?
- What were the changes made to improve the process?



Group Discussion

Application of Lean

Lean can be applied to all processes, both in:

- Customer Facing Processes
- Internal Business Processes
 - ✓ PEIMS Reporting,
 - ✓ Accounts Payable/Receivable
 - ✓ Payroll Processing
 - ✓ Student Enrollment/Registration
 - ✓ Federal Funds/Grant Compliance
 - ✓ Transportation Routing
 - ✓ Child Nutrition Services
 - ✓ IT Help Desk Operations.





Busy

- ▶ Sorting through stacks of paperwork
- ▶ Re-checking completed work
- ▶ Re-entering the same information
- ▶ Responding to repeated follow-ups





Productive

- ▶ Resolving requests correctly the first time
- ▶ Getting new employees ready to work on schedule
- ▶ Processing accurate, on-time payments
- ▶ Removing the cause of recurring delays





The goal is not to keep people busy.
It is to remove barriers so work creates value.

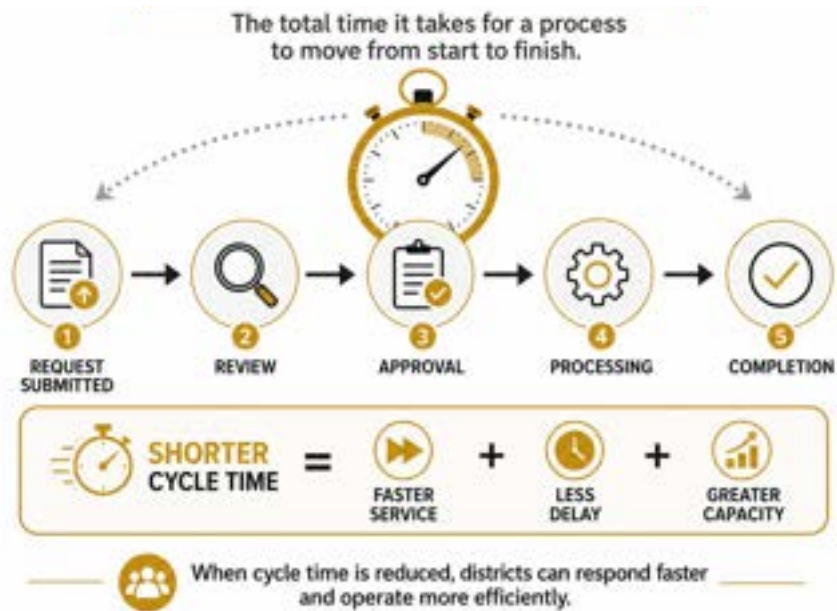
Cycle Time



“One of the most noteworthy accomplishments in keeping the price of Ford products low is the gradual ***shortening of the production cycle.*** The longer an article is in the process of manufacture and the more it is moved about, the greater is its ultimate cost.”

- Henry Ford, 1926

Cycle Time



Lean is Market Driven



Minutes Saved Becomes Annual Capacity

Saving just 5 minutes per workday for each employee across a 100-person administrative staff creates more than 2,000 hours of additional organizational capacity each year — roughly the equivalent of one full-time employee.



Lean is Market Driven

Every morning in Africa, a gazelle wakes up. It knows it must run faster than the fastest cheetah or it will be killed. Every morning a cheetah wakes up. It knows it must outrun the slowest gazelle or it will starve to death.

It doesn't matter whether you are a cheetah or a gazelle, when the sun comes up, you had better be running.





Value Added vs. Non-Value Added

A simple way to evaluate where time creates value — and where it does not.



Value Added

Activities that directly contribute to the intended service or outcome and meet the needs of students, staff, departments, or the community.



Examples

- Resolving a technology issue
- Processing an accurate payment
- Completing employee onboarding
- Providing student or instructional support



Non-Value Added

Activities that consume time or resources without improving the outcome or meeting a legitimate requirement.



Examples

- Duplicate data entry
- Unnecessary approvals
- Rework and corrections
- Waiting and repeated follow-ups



Ask: Does this activity create value or simply consume resources?

Value Added



Activities that directly contribute to the intended service or outcome and meet the needs of students, staff, departments, or the community.

VA activities should:

- ✓ Transform the service, information, or process in a meaningful way
- ✓ Be done correctly the first time
- ✓ Advance a critical school function or student outcome



Focus on work that **creates value**.

Non-Value-Added



Necessary NVA **do not add value** but are required:



Stakeholder Requirements
Required by our students, staff, or community.



Regulatory Standards
Required to meet laws, policies, and compliance.



Grant Requirements
Required to receive and maintain funding.



OUR GOAL: Minimize Necessary Waste. Eliminate Pure Waste.

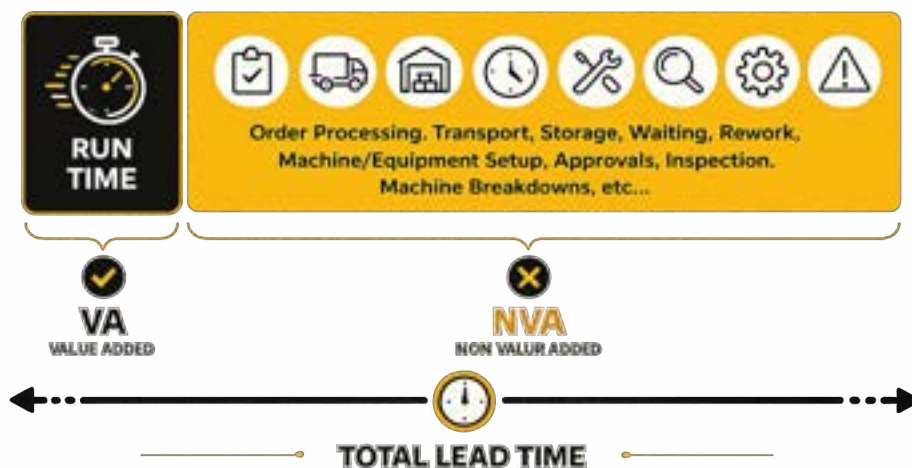
The foundation of Continuous or Process Improvement is the identification of wastes in your process and working towards eliminating them.





Lean = Eliminating Waste

TYPICALLY 95%
OF TOTAL LEAD TIME IS NON-VALUE ADDED!



Defects



A defect or error is when a task, process, or deliverable does not meet expectations or requirements and typically requires additional time, resources, and/or effort to fix it.



Process Variability

Inconsistent practices lead to different outcomes.



Lack of Standards

Unclear expectations result in inconsistent work.



Poor Quality Controls

Issues aren't identified until after completion.



Poor Documentation

Missing or incomplete information causes errors.



Inadequate Training

Staff lack the knowledge or skills to succeed.



Poor Maintenance

Tools, systems, and facilities are not well maintained.



Customer Needs Not Understood

We don't fully understand student, staff, or family needs.



Our Goal: Get it right the first time so we can focus on what matters most—our students and community.

Overproduction



Overproduction is the creation of materials, reports, forms, or information before they are needed, in greater quantity than needed, or for a process that is not ready to use them.

Common causes of overproduction in school systems:



Unclear understanding of next steps



Just-in-case thinking



Uneven scheduling



Unbalanced workloads



Redundant inspections or reviews



Premature form or report processing



Duplicate document creation



Our Goal:
Produce only what is needed, when it is needed, and in the amount needed.



Waiting occurs whenever work stops because the next step, decision, person, or resource is not ready.

Common causes of waiting in school systems:



Unbalanced workloads



Approvals or signatures



Insufficient staffing



Incomplete information



Delays between departments



System or equipment issues



Waiting on responses or follow-up



REQUEST SUBMITTED



WAIT / DELAY



APPROVAL / NEXT STEP



Our Goal: Keep work moving by reducing delays, improving handoffs, and speeding up decisions.



Faster service



Less frustration



Better use of staff time



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Non-Value-Added Processing Waste



Performing more work, steps, or reviews than is required to complete it or meet compliance/regulatory standards.

Causes of Non-Value-Added Processing Waste:



Duplicate data entry

Re-entering the same information in multiple systems.



Excessive approval hierarchies

Too many people involved in approving simple tasks.



Print-sign-scan loops

Unnecessary printing, signing, and scanning of documents.



Poor communications

Lack of clarity causes rework and extra follow-ups.



Slow approval process

Delays add no value and slow down the entire process.



Extra copies/information

Creating or collecting more than what's needed.



Excessive reporting

Reports that are too frequent, too detailed, or unused.



Our Goal: Eliminate extra steps so our time and energy go toward what truly matters—serving students, staff, and our community.



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Transportation Waste



Transportation waste is the unnecessary movement of paperwork, files, supplies, or materials between people, departments, or locations without adding value.

Common causes in school systems:

- Poor office or workspace layout
- Multiple handoffs for approvals or reviews
- Poorly sequenced workflows
- Scattered files, supplies, or materials
- Unnecessary movement between departments
- Reliance on paper-based routing



Our Goal: Reduce unnecessary movement by improving layout, simplifying handoffs, and routing information more efficiently.

Inventory Waste



Any supply, record, or file in excess of what is required to maintain a smooth, single-item operational workflow.

Causes and examples of excess inventory:

- Obsolete assets in storage
- Digital bottlenecks and backlogs
- Software over-licensing
- Document hoarding
- Stockpiled supplies
- Uneven administrative workloads



Our Goal: Keep only what is needed, reduce backlog, and improve flow across the system.

Motion Waste



Any physical or digital **movement** done by the staff that **does not add value** to service or workflow.

Causes of Motion Waste



Deeply nested digital folders
Hard to find information; time wasted searching.



Fragmented office workstations
Tools and information spread across locations.



Lack of file standardization
Different formats and naming create extra steps.



Inconsistent work routines
No clear process leads to extra movement and rework.



Repetitive physical document handling
Printing, routing, and reshuffling add no value.



Administrative friction
Unnecessary clicks, logins, approvals, and handoffs.



Employee Utilization Waste



The waste of **not using people's abilities** (mental, creative, physical, etc.)

Causes of Employee Utilization Waste



Poor communication
Information gaps lead to confusion, delays, and frustration.



Failure to involve employees
Great ideas and insights go unused.



Poor hiring practices
Misaligned skills lead to underperformance.



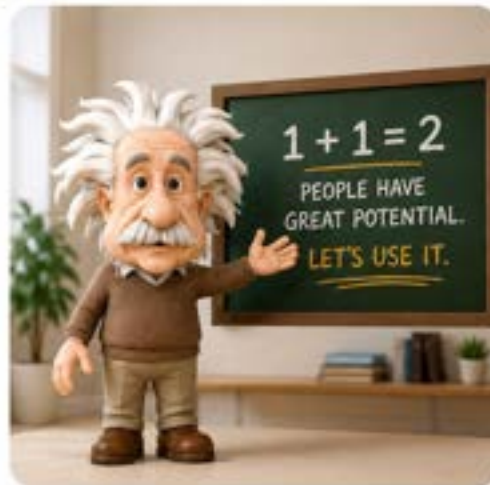
Poor management
Lack of direction, feedback, and support.



Low or no investment in training
Skills stagnate and potential is never realized.



Lack of team training
Teams don't build trust, alignment, or shared purpose.



Anything that **can't** be reused, recycled, or resold.

Causes of Environment & Energy Waste

-  **Quality Rejects/Scrap**
Rework or discarded materials due to errors or defects.
-  **Poor Packaging Design**
Excess packaging or non-recyclable materials.
-  **Poor Product Design**
Items not built for durability, repair, or reuse.
-  **Leaks (air, water, etc.)**
Uncontrolled leaks waste resources and increase costs.
-  **Using Too Much**
Excessive use of materials, water, and energy.
-  **Making Too Much**
Producing or purchasing more than needed.



Key Takeaways

- ▶ There are 9 common types of waste (Defects, Overproduction, Waiting, Non-Utilized Talent, Transportation, Inventory, Motion, Overprocessing – DOWNTIME).
- ▶ Waste is any activity that does not add value to the end result.
- ▶ Being able to see waste is the first step to eliminating it and improving efficiency.
- ▶ Small improvements in reducing waste can lead to significant gains in time, cost, and quality.
- ▶ Identifying waste is a team effort—engage different perspectives to uncover hidden inefficiencies.



Do You Have Waste?

Take a moment to reflect on the 9 Wastes reviewed. Select a process from your area and identify any wastes that come to mind.

- 1  Defects _____
- 2  Overproduction _____
- 3  Waiting _____
- 4  Non-Value Added _____
- 5  Transportation _____
- 6  Inventory _____
- 7  Motion _____
- 8  Employee Utilization _____
- 9  Environment & Energy _____



Work Together or Individually



Share ideas and challenge assumptions.



Focus on the process, not the person.



Be specific with examples.



Think about how it impacts students, staff, and the community.



Remember: What we don't see, we can't improve.



Questions?



THANK YOU



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Driving Manufacturing Success Together.