Lucid Facilitator's Guide

KAIZEN EVENT

A kaizen event, also known as a kaizen blitz or lean event, is a 4-hour to multiple-day working session aimed to remove process "wastes". Wastes include over-production, over-processing, lost time, defective products, poor service, extra inventory, information gaps, poor ergonomics, and untapped employee abilities. All improvements are aimed to make the product or service deliver more value to customers.

Use this template to set up and help guide your team through your next kaizen event.

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INTRODUCTION

Kaizen came out of Toyota, where it was the key to its ability to build high quality and low cost parts and cars. It has been a "movement" in big companies for years, and it can now be of great benefit to smaller enterprises as well.

Toyota invented the idea of process "waste", a concept that is different than "problems". We normally consider a problem as something that is "broken", such as a tool or system that is so marginal that it likely should be replaced. In the early days of Japanese industry, they had little money and few natural resources available. To make the most of this challenging situation, companies like Toyota learned to utilize their peoples' creativity to solve operating problems, like finding and eliminating waste in their office or factory work. This made it possible for them to become competitive with big companies while operating on a smaller volume of sales.

Kaizen is defined as: Small changes, involving everyone, that don't cost a lot of money.

The concept of lean production uses kaizen in all parts of a "value stream" to create a steady flow of high quality, low cost products and services to customers.

Success Story

In Oregon, one company applied lean thinking to their metal molding operation. The kaizen was managed visually by the team and achieved over 50% increases in output, safety, quality, and cost reduction. The improved process worked right away and was still in place three years later.

Kaizen, Lean, and Six-Sigma: What's the difference?

A "kaizen blitz" and "lean event" differ only in scope; both engage employees, supervisors, maintenance and technical resources to identify waste in the work and redesign the work flow so that it delivers more value to customers with less waste and better conditions for employees.

"Lean production" increases the scope of kaizen to a full flow of products or services to customers, looking at everything involved in delivering value to customers from start to finish.

In contrast, "Six-Sigma" is a quality analysis that narrows the scope by drilling down on a particular job, machine, or work center using data. Six-Sigma is especially useful in manufacturing and large businesses, where teams have a lot of data about each element in the work flow.

Lean is more about "velocity and flow" throughout the system, while six-sigma aims to get better product yield or quality in a limited scope.

About the Kaizen Event

A kaizen working session is aimed to remove process wastes. All improvements are aimed to make the product or service deliver more value to customers. In a kaizen event, a team is formed, oriented and then observes and prioritizes waste in the targeted work flow or customer-facing service center.

Led by the facilitator or manager, the team prioritizes the top few wastes, then discusses and tries solutions or counter-measures for each one. The deliverables from a kaizen on a process are: improved delivery, lower cost, higher quality to customers, and making the work safer and easier for employees to do.

THE 7 TYPES OF PROCESS WASTE



Rework

Work that needs to be done again due to defects or mistakes made the first time.



Over-Production

Making too much of something, or making it too early.



Over-processing

Doing the same thing more than once, or doing more than needed to deliver value to the customer.



Inventory

Storing products or materials that aren't needed in the near future.



Transportation

Moving people or objects farther or more often than needed.



Waiting

Any time when a person or object sits idle, waiting for the next step in the process to begin.



Motion

Ergonomic issues such as repetitive physical motion, mental fatigue from staring at small type on a screen, lifting too much weight, etc.

KAIZEN EVENT & FOLLOW-UP MEETING AGENDAS

There are two meetings in this process. In the first, your team will identify wastes and develop experiments to improve the process.

In the second meeting, your team will review how well the improved process works in practice, and document the improved process as the standard work flow for everyone to follow from then on.

SESSION 1

- Meeting Opening
- Waste Walk
- **3** Discuss and Group Waste
- Prioritize Opportunities
- **5** Brainstorm Solutions
- 6 Plan Kaizen Experiment
- Review and Closing

ESSION 2+

- Meeting Opening
- Review and Approve New Process
- O Plan Kaizen Experiment #2+
- **(4)** Review and Closing

STEP-BY-STEP INSTRUCTIONS

Before the First Session

Pre-work for a kaizen event starts with defining the purpose, scope, deliverables, and agenda with the sponsor of the event. The sponsor is the company owner, plant manager, or functional manager who has the power to break barriers and put the proven kaizen ideas into practice.

Once the sponsor has defined the direction, the manager or facilitator prepares to deliver the agenda and facilitate the "waste walk" and kaizen identification process.

Who to Invite

A kaizen team should be a mix of those who do the job, supervisors, and technical resources like engineers, maintenance personnel, and suppliers. Many of the people invited should have direct experience with the work involved.



Schedule the first session at least one week in advance.

Scheduling

The room and timing of the event must be coordinated into all participants' schedules and a one-page description of the event discussed with everyone. (You can download or request an example of this one-page description at Senseiway.com.) Those employees not directly involved in the kaizen event should be briefed on its purpose and process, and on when they will get the opportunity for input. Typically this happens during a trial and/or review conducted before kaizen changes become standard procedures.

Preparing Examples

Next, the kaizen team leader prepares for the event by reviewing the agenda, developing a personal way of defining kaizen and lean production, giving specific examples of the seven kinds of waste, and preparing for anticipated questions or resistance to change.

Send Out Pre-Reading

Find and email participants one or two short articles you like about using kaizen and lean in your type of business. These may be downloaded from the <u>resource list provided here</u> or other sources, such as Harvard Business Review and Industry Week.

Dealing with Resistance to Change

In some businesses, lean production has been misused as a job cutting program. The sponsor of the event or the kaizen team leader should assure employees that the aim of a blitz is improving quality and delivery to customers, not job reductions in the organization.

If this cannot be guaranteed by the sponsor, question if the event should even be held or perhaps held later. For instance, if a layoff is under consideration, delay the kaizen event until after it is over. Then, improve the work with those who will stay.

Three Ways to Document Results

Using Paper, Whiteboads and Sticky Notes in Face-to-Face Meetings

Before the meeting, prepare clipboards for each group to use during the "Waste Walk" in agenda item 2. Prepare the meeting space with a whiteboard, markers and sticky notes for:



- 1. Listing individual examples of waste.
- 2. Grouping waste by type.
- 3. Voting and prioritizing the most important wastes to address.
- 4. Brainstorming solutions and listing next steps.

Using an Online Co-Editing Document Application (Google Docs, Microsoft Word Online, etc.)

Before the meeting, create a new document that everyone in the group can access and edit together. Include a link to this document in your meeting invitation. Add the meeting name as the document title.



Create a heading for "Priorities". The group will list wastes here during the Waste Walk, and then copy and paste to reorganize these later.

Create another heading for "Possible Solutions". Write notes under each heading during the meeting, and edit the proposed solutions as needed.

Using Lucid Meetings

Each template includes built-in space for documenting results.



- Add notes to each agenda item by clicking the "Add Notes" button.
- Tag notes to group related types of waste.
- Document solution ideas and the final experiments to be tried in notes.
- Add and assign Action Items to capture next steps.

Running Session 1

Meeting Opening

Begin by welcoming everyone and then conducting a round of introductions. Ask each attendee to briefly note any prior experience in kaizen, lean or lean six-sigma. You may need to clarify the differences. If the team is unfamiliar with this kaizen process, or if it has been more than 6 months since your last lean event, provide a quick overview.

For example, you might say:

A kaizen event is a workshop where a team aims to recognize and eliminate waste in their workplace. Wastes such as lost time, materials movement (and others) can be found and eliminated in every factory, business process, transactional office, warehouse, and restaurant or small business.

Next, ask the sponsor to provide an introduction covering why the event is being held and what he or she wants to see as a result.

Finally, ensure everyone is prepared to identify wastes in the target process by reviewing the 7 types of waste and discussing examples.

For example, you might say:

Kaizen is a Japanese term meaning, "Small changes, made by everyone, that don't cost a lot of money". The goal of kaizen is to find, prioritize and eliminate the seven working wastes: over-production, over-processing, inventory, rework, motion, transportation, and waiting.

Who has a quick example of one of these wastes in our work?

When you're confident everyone understands the goal and process, **click "Next >"** to get started with the waste walk.

Waste Walk

Next, the team does a "waste walk" in the workplace and lists actual examples for later discussion. For the waste walk, divide the team into one or more pairs or trios of participants, and arm each team with a clipboard or tablet they can use to write down the wastes they observe.

Direct each group to go and simply observe and list wastes they witness. If it has been pre-approved by the local area supervisor, they may ask job holders how they do their tasks. They are not to discuss any solutions at this point as they may be premature and a distraction.

At the conclusion of the agreed upon time, bring the group back together and **click "Next >"** to move to next step in the process.

Discuss and Group Waste

Re-grouping in the conference room or online meeting, the kaizen team <u>turns their lists of wastes into individual notes</u>. Include the initials of the author on each note in case of questions later on. The team leader then works with the team to group these notes under the broad headings of "people", "process", and "tools/systems". Teams using Lucid can tag notes to group similar items together.

You may end up with notes for items that don't quite fit the scope and intent of this kaizen event. To make sure these observations don't get lost, and to help keep the team focused on the intended topic, the team leader should add these to a <u>parking lot</u>. For example, systems changes, personnel, new equipment, policy issues, legal issues, suppliers, etc may all be beyond the scope of this kaizen event.

Once all the notes have been shared, grouped, and clarified to make sure everyone understands them, **click** "Next >" to advance the agenda to the next step in the process.

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Prioritize Opportunities

Now your group discusses and prioritizes the top few wastes from the three headings above: people, process and tools/systems. If the top targets for kaizen are unclear, <u>use dot-voting</u> to prioritize the top few dot-getters. In Lucid, participants can add an X or other mark to a note in place of a sticky dot.

Pick the highest priority waste and discuss the root-cause that fuels it. The typical process is called the "5 Whys". Begin by asking why, for instance, do the cashiers fail to give back the customer's card after a purchase? It could be because they set it aside out of direct view in a non-standard place, for example. Then why do they not have a standard, visible place to see and return the card to the customer? And so on.

When the group has identified the top few wastes and found root cause for the top one, **click "Next >"** to begin brainstorming possible solutions.



Brainstorm Solutions

Once the root cause of a waste is clear, the team begins to brainstorm solutions. Discuss possible solutions until you have a solution identified for the first top priority waste.

For example, in not returning the card to the customer above, perhaps it would work to install a tray to hold the card until it has been approved online, then return it with the receipt for signature. This is but one example of a possible solution to try.

Other typical solutions: lack of specific training could be countered by cross-training, a confusing process could be resolved by written standards for specific tasks, missing or defective tooling or equipment might be replaced or fixed right away, or begun as a lean project.

In some cases, a solution will not be apparent. When that happens, discuss what are called 'counter measures'; ways to limit the waste or errors while continuing to seek a full solution. Once you have a solution identified, **click "Next >"** to move on to planning your kaizen experiment.

Plan Kaizen Experiments

Once the team has preferred solutions and counter measures, they define a way to do a trial run. that tests the kaizen ideas for a few minutes, hours, or a day or so. Plan each trial so that team members can be present to observe how well the proposed kaizen works and ask for additional input from other employees

For example, in the card return example above, they might simply place colored tape on the desk next to the register as a simulation of a tray to hold the card. They might also train the clerk to pair the receipt printing with returning the card every time. These kinds of solutions are then tried in practice for the agreed upon time with observation by members of the kaizen team and suggestions solicited from the people who do the job.

Clearly define each experiment. In Lucid, create action items for each experiment, assign an owner, and set a due date by which the experiment needs to be completed.

Once you have each experiment documented, **click** "Next >" to conduct a final review and close the meeting.

Review and Closing

Conduct a final review of the kaizen and next steps. Then, quickly review any items remaining on the parking lot for clarity and assign individuals to pursue them with the sponsor after the meeting. Make sure everyone fully understands and commits to their action items and thank everyone for their participation.

CORE TOOL: DOT VOTING



What Is It?

Dot-voting is a fast and easy voting system for determining the highest priority items on a list. The technique is called "Dot Voting", because in face-to-face meetings, votes are cast by placing a sticky-dot or using markers to make a dot next to an item pasted on the wall.



How it Works

After assembling a list of options, the group starts a dot-vote to determine which few high-priority items to focus on.

The leader will share any criteria that participants should keep in mind when placing votes, then ask participants to cast their votes.

Each person gets a fixed number of votes (or dots) that they can cast however they want; they can place all their votes on the same item if they wish, or vote for several different items. This allows participants to vote for multiple options, and reveals relative priorities rather than declaring any single item a "winner".

Everyone votes at once.

After participants place all their dots, the leader counts the dots to identify the preferred options. The color of the dots does not matter. The items with the most dots rank highest.

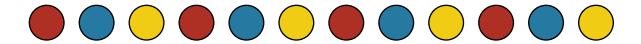


How many dots should each person get?

Everyone needs enough dots to vote on multiple items. This makes it possible to express relative priorities by putting more dots on one item about which one feels strongly. You also need to ensure that when voting concludes, the group will see a clear set of priorities.

To ensure a clear result, the number of allowed votes can be no more than 30% of the available options. For example, if the list contains 12 items, each person would have no more than 4 votes to cast.

To keep it simple, many teams use 3 dots per participant every time.



CORE TOOL: THE 5 WHYS

What Is It?

Developed by the <u>Toyota Production System in the 1950s</u>, this technique is a popular way to determine the root cause of problem. It works by repeating the question "Why?" at least 5 times, with each question digging deeper into the answer of the previous question.

How it Works

After you've identified a problem, ask "why" the problem occurred. Continue to ask "why" until you reach the underlying source of the problem. Most often, the root cause of a problem is a faulty system or process.

A key phrase to keep in mind in any 5 Whys exercise is: **People do not fail; processes do**.

Example

Problem: The customer refuses to pay for the soup.

- 1. Why? The soup was cold.
- 2. Why? It took too long to get the soup to the customer's table.
- 3. Why? The waiter was busy with another customer and couldn't get back to the kitchen when the soup was ready.
- 4. Why? The waiter was the only person available to take orders and deliver food.
- 5. Why? We didn't have anyone else trained to deliver food.

Counter-measure:

We need to train other staff to deliver food when it's hot, for those times the waiter is busy.

Solution: Check the soup with a thermometer, or set a timer with a limit visible at the server's pick up and reheat as necessary.

Between Meetings



Immediately after the meeting

Send out the follow-up email to all involved staff, which makes sure everyone gets their action items and a full report in their email.

Results of the Experiments

When kaizen experiments have proven successful, the new methods should be written up as a standard work procedure. Conduct each experiment, and send the results to the leader and sponsor, who will update the kaizen action list off-line and send it to the kaizen team for a final review.

The final step is to document the standard work procedure on paper and share with all staff doing the job.

Running Session 2+

Meeting Opening

Welcome the team back and take a moment to ensure everyone had a chance to read the list of kaizen improvements that received follow-up or experiments sent before the meeting. After everyone's had a chance to re-acquaint themselves with the work, **click "Next >"** to move to the next agenda item.

Review and Approve the New Process

Now that the team has validated a solution by an experiment, the kaizen team writes up the new standard work procedure, including a picture. This new procedure circulates to all involved operators for final approval. Once approved, it is to be the new best practice for everyone to follow.



After this new standard is distributed, it is to be the official process all employees use to do the task. In our example, this will be the way every cashier returns a credit or debit card to a customer every time.

Review the change with everyone again briefly during this meeting and get their commitment. Then, assign someone to distribute the new 'standard work' procedure for everyone to follow; this critical step ensures the kaizen improvements are put into practice.

3

Plan Next Kaizen Experiment

Select another kaizen in the same area from the list of wastes you developed earlier and develop an experiment. If there are no significant wastes left to address, or if a different work area or process needs the team's attention, plan to begin another kaizen or lean event.

For example, after the initial kaizen of eliminating the waste of an unreturned card is finished, the team would proceed to the next biggest waste and kaizen opportunity on the earlier list, and select the next highest priority, then repeat the kaizen process.

If there are systems, policy, or supplier problems causing the waste, such as a cash register that is slow or fails to process card information intermittently, a longer-term project may be required. When that happens, a site manager or business owner may have to provide the experts and resources needed to complete such a project.

Whether you design a new experiment or plan a new lean event, capture action items documenting the steps to be taken, an owner, and an anticipated due date.

In some cases, a longer-term project or new financial resources may be required.

After the team has clear plans, **click "Next >"** to move to the final agenda item.



Review and Closing

Review any items remaining on the parking lot for clarity and assign individuals to pursue them with the sponsor after the meeting.

Then, quickly review all action items, ensuring each task is fully understood and that the assigned task owners commit to completing each task by the due date.

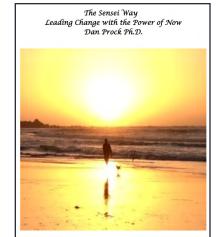
Finally, thank everyone for their participation and end the meeting. You're done... until next time!

More Kaizen Success Stories!

The automotive supplier production line had been running for over a decade at one midwest US company, and the engineers believed it couldn't be improved significantly. Yet after just four days of applying kaizen improvements, the line produced 18% more good parts per day, with 18.2% less staff time required. There were also improvements in inventory and quality.

The legal department of a Fortune 100 company needed to improve its process for patent filing due to a new American law. After 3 months, the new lean patent-filing lead-time had declined from 222 to 173 days, eliminating 49 days from the process.

RESOURCES FOR ACHIEVING MEETING MASTERY



By Dan Prock

The Sensei Way

http://www.senseiway.com/

Dan's work with Lucid Meetings

http://www.lucidmeetings.com/templates/designers/dan-prock

On the Web

Monthly meet-ups among lean practitioners are listed online.

The Lean Enterprise Institute

The Lean Enterprise Institute provides blog posts, books, or other resources on kaizen blitz events and lean production implementation.

http://www.lean.org/

The Association for Manufacturing Excellence http://www.ame.org/

The American Society for Quality

http://asg.org/

The Association for Manufacturing Excellence and American Society for Quality are also sources of information on kaizen and lean production.



Related Templates

The Urgent Problem Solving Meeting

http://www.lucidmeetings.com/templates/urgent-problem-solving

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ABOUT THE AUTHOR

This template was designed by Dan Prock, President of Sensei Way L.L.C.

Dan Prock is a graduate engineer with a Masters and Ph.D. in psychology. He has been a lean enterprise facilitator, coach and "train the trainer" workshop leader for over 20 years.

Over that time, Dan led hundreds of kaizen events in factories and knowledge work areas including product design, quality assurance, software development, marketing, law, restaurants, and small shop operations.

Dan Prock is author of the <u>Sensei Way</u> and can be contacted at <u>dan@senseiway.com</u>.



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