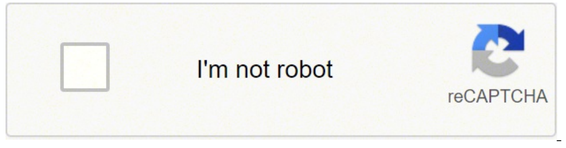

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What is visual management lean

General Manager at iObeya overseeing North American operations. Former 15-year Cisco exec and a certified SAFe (Scaled Agile) consultant. getty If you've ever worked on a cross-team project, you've likely found yourself in this familiar situation: You outline a detailed series of activities and share all the documents with colleagues. Yet even with all this carefully articulated information, the project's workflows prove to be unclear for others — proof that more information doesn't necessarily lead to greater understanding; sometimes, we need to see it. A research report commissioned by 3M Corp. found that visual aids improve learning by up to 400%, that we process visuals 60,000 times faster than text and that the average person only remembers about one-fifth of what they hear. While visual communication is not new (think: cave drawings and smoke signals), it wasn't until the invention of the Gantt chart — a type of bar chart still widely used to illustrate a project schedule — that industry came around to the idea of using visual controls for production. Today, visual controls are all around us: traffic lights, signs and lane markers help drivers navigate the world, color-coded uniforms identify store workers, our phones blink with notifications and so on. Visual management: Using visual controls to improve operational performance. Visual management is intended to convey vital information in such an intuitive visual way that it requires virtually no explanation in order to understand it. With good visual management, anyone in a workplace should be able to instantly see the current state and progress of work, navigate the area, track how their team is performing versus target, be aware of any issues and more. By creating instant visual cues, organizations can make information clear and actionable, thus improving productivity. Toyota was the first company to take visual management into production in Japan in 1938, and its early philosophy of continuous improvement has since evolved into a global phenomenon known as "lean" management. It wouldn't be for another 40 years that Western business leaders would learn of the Toyota Production System and its highly effective "kanban," which is still used today to visually align production with demand in order to reduce waste. With kanbans, tasks are represented visually to give workers a view of progress from start to finish, and new tasks enter a queue when bandwidth permits. With a visualized workflow, tasks can be prioritized efficiently, and issues can be resolved before a backlog grows too large. This is important in any industry since backlogs tie up investment and increase costs. Toyota later invented the "ōbeya," or "big room," in the 1990s as it was bringing the Prius to market. As Lean Leadership Academy executive director Sam MacPherson told IndustryWeek, "obeyas provide dedicated space as well as time for coordination and problem-solving, and are designed to minimize organizational barriers." "If you think of TPS [Toyota Production System] as being a nervous system, then 'obeya' is actually the brain of the system. It is where that information comes to be synthesized, and digested, and then analyzed, prioritized and decisions made about what we are going to do with this information," MacPherson explained. The report also noted that "visual management is a key, with obeya walls typically plastered with charts, tables, and other data or communications for team members to review and act upon. ... The end result: quicker, more effective solutions." Managers also rely on practices like "gemba walks." During a gemba (Japanese for "real place") walk, typically conducted daily or weekly, managers physically visit workers at their workstations to discuss how business operations can be conducted as efficiently as possible. Covid-19 has forced visual management to digitize. When the pandemic struck, many organizations had to digitize physical operations — including visual management — since physical visual management became complicated with remote workers. This meant moving whiteboards, kanban boards, ōbeyas and Gantt charts to digital workspaces. Even gemba walks moved virtual. We're nearly a year in, and most organizations are still struggling to make this shift. Many more have yet to begin. If an organization is at the beginning of its lean journey and has yet to transition to digital visual management, it should first identify how its products or services satisfy customer needs and how the organization fulfills them. Second, it should assess how it is currently using visual management in its physical spaces since building upon processes that already exist can create a solid foundation for transitioning to virtual/digital. To ease friction, consider developing a change management plan ahead of time that engages affected stakeholders. Organizations must also determine how deeply integrated into their business it makes sense to go. For the casual user, for example, there are a wide variety of single "event" products that can get a group of people around a virtual whiteboard to facilitate a brainstorming session. Deeper process improvement requires a digital toolkit that includes templates for problem-solving such as an A3, fishbone diagrams and more. Companies that are ready to completely integrate should fully understand how their workforce interacts with data, how digitization will affect their jobs and how their IT infrastructure can adapt, and they should be committed at all leadership levels to engaging people in the transformational process. Organizations can avoid stumbling blocks by establishing a clear vision of how they plan to use digital visual management — whether at the event, process or business level. A well-mapped and successfully implemented digital visual management program will be hindered if duplicate physical processes remain in place, such as action logs continuing to be kept in spreadsheets or meeting minutes staying siloed in documents or email. To be successful, leadership must make digital visual management the centerpiece of business communication and establish a regular cadence for reviewing the data that drives decision-making. Thankfully, the end to the pandemic seems to be in sight. For many organizations — particularly those that have undergone a lean transformation in an increasingly distributed and digital working environment — it's unlikely that there will be a return to pre-Covid-19 practices. For those organizations that have not yet embraced lean, the question becomes: What's stopping you? Forbes Technology Council is an invitation-only community for world-class CIOs, CTOs and technology executives. Do I qualify? Yet another hot topic in lean manufacturing is visual management. This can be very helpful in running a shop floor, but when done wrong it can also be quite wasteful and embarrassing. In this post I would like to show you the basic principles of visual management with a few examples. There is more to visual management than merely putting lines on the shop floor. The Basic IdeaVisual management aims to make the situation easily understood merely by looking at it. The goal is to get as much information as possible with as little observation or time as possible. Visual management complements well with the idea of going to the real place (Genchi Genbutsu). It also intertwines closely with 5S.Like most topics in lean, you can use the English phrase Visual Management, or you can use the Japanese term. While I prefer English when speaking to an English-speaking audience, the Japanese term is Mieruka (見える化 with 見える or mieru for being able to see and 化 or ka for the action of making something). Four Approaches to Visual ManagementIn my view there are different directions you can go with visual management. I will discuss them here in order of preference, with the best one at the end.Visual Management with Data DisplaysVisual management can be done by putting data on display on the shop floor. It is usually my least-preferred way, but with some information it is difficult to do otherwise.One common example is digital information displays, often called Andons (See also my post All About Andon and How to Use an Andon – and How Not To). On such information displays you can usually see the production rate, the quality defects, and the status of the machines.It is also possible to put data on paper. Often this is printed, although I prefer handwritten data due to the better involvement of the workers (see The Advantage of Handwritten Data on the Shop Floor). Ideally, this data is shown graphically and easy to understand, using graphs, tables, diagrams, and colors.The idea is again that the data is right there on the shop floor. This is useful if there is no easier way to visualize the system.Visual Management with MarkingsAnother approach is to mark and label locations on the shop floor. Using different colors you can mark what goes where, and label the places so that the items and tools go to the correct places.A lot of such markings are actually government regulated. For example, all fire- and emergency-related markings are examples of visual management.Visual Management with Tools and PartsThe best type of visual management is if the information about the system can be seen in the system directly. If you create a graph or a data display, there is a chance that it is outdated or simply wrong. Whereas if you see inventory on the shop floor or tools in a drawer directly, the information is up-to-date, and less likely to be incorrect.Common examples are tool drawers where each tool has its own location. You can see immediately which tool goes where and which tool is missing.Knives drawer on AlcatrazA similar approach is a shadow board, where the shadow of each tool is outlined. The shadow board here was used at Alcatraz prison in San Francisco. At the end of the shift, the guards could see immediately if all knives were returned, or if an inmate was walking around with a potential weapon.I have seen similar shadow boards for knives in the food industry. The managers there worry less about murders, but they don’t want any tool to go missing and potentially end up in the products.Visual Management using LayoutThis can also be done with material. A good FiFo lane not only manages inventory but also shows you where your material is, how much more work there is, and many other details on your process.Even the overall material flow can be visualized through the arrangement of the machines. A flow shop is so much easier to understand than a job shop, since the machines are arranged in the product flow. It is much easier to understand where the flow of material is hampered.The image below is the shop floor at Trumpf, which I find particularly well organized and easy to understand.As a counterexample here is an old smithy. Even though it is a much smaller space, it is much more confusing.Of course, I have also seen flow shops that were built like a maze, and even the workers that worked there every day had difficulty understanding the material flow. Clarity and structure are not only nice to the pedantic German engineer (me), but actually do have benefits for understanding the system.Similarly, it is possible to structure your inventories. A supermarket has a dedicated lane for every product. You know immediately how much you have of which material. You can even mark the supermarket with green and red to show when you may get into a critical low-stock situation. This is so much easier than having an unstructured warehouse.Some Not So Good Examples!Not good…Ummm….Like everything, visual management can be done badly too. It is particularly easy to overdo it with the markings. The image on the left is staged, but similar examples can be found proudly advertised on the web.This is overkill. There is no advantage in visual management for individual pens and scissors, especially if it is the personal desk (it may be useful if it is a shared workspace, but even then it may also be too much).Also, for illustration here is the cabling of two different computer racks. See the difference?Examples Outside of ManufacturingThere are also examples in other industries. For example, during surgery, used sponges and gauze are stored in an array of plastic bags or hung on hooks so it can be easily seen how many were returned. The number of surgical sponges after the surgery has to be the same as before, otherwise the surgeon has to go looking for the missing sponge. After all, you don’t want the patient to wake up with something extra.For a more positive historic example, see my blog post on Visual Management during World War II – A Visit to the Lascaris War Rooms in Malta. You can find a lot of visual management ideas there before the use of computers. Quite nifty, and open to the public if you happen to be in Malta .Again, the goal of visual management is to understand the situation as quickly as possible merely by looking at the shop floor (or, as a second choice, data displays on the shop floor). So go out, make your factory easier to understand, and organize your industry!P.S.: This blog post is based on a question by Prashant.

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