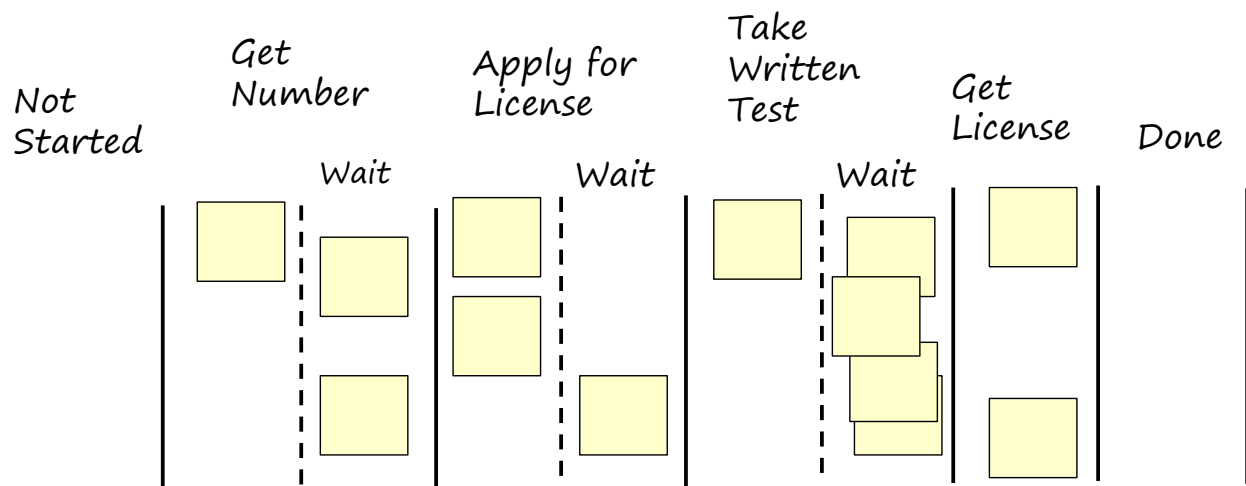




Visualizing Workflow in Your Organization

How to Use States on Your Visual Planning Board

by Kathy Iberle



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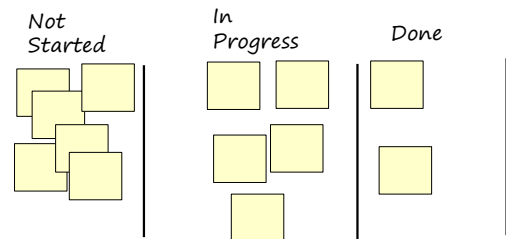
Key Points

- A Visual Planning Board can track the progress of work through your various teams.
- Follow the work, not the worker! Show your jobs moving through your organization.
- Stop starting, start finishing. Manage “traffic jams” by slowing or stopping incoming work.

The Columns in a Visual Planning Board

The most basic Visual Planning Board has only three columns:

- Not Started
- In Progress
- Done



Large organizations often want more details concerning the jobs “In Progress”. They might ask how far a given job has progressed or which group is currently responsible for that job. A Visual Planning Board answers these kinds of questions by dividing the “In Progress” column into multiple columns. Each column represents the current *state* of the job. States represent different activities being performed on a job. Well-defined states make the relative workloads across departments, workstations, or other non-interchangeable resources much more visible, and clarify handoffs as well.

Drawing a Process Map

The first step in defining useful states is to draw a map of how jobs travel through your organization. Your organization may already have a map you can use, often called a *process map* or a *value stream map*. If not, here’s how to start.

- Make a list of the activities which must be done for each job, and who performs each activity.
- Draw each activity as a box, and label it with a verb phrase describing the activity.
- Draw arrows between the boxes, representing the flow of work from one activity to the next.
- Label or color-code the boxes to show which group or department is responsible for performing the work. If the activity is automatically done by a computer, then say so.
- On your Visual Planning Board, create one column for each activity.

Let’s look at an example. What happens at your local Driver Licensing Office when a person needs a new license?

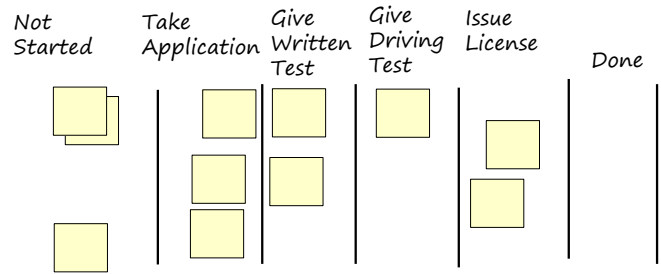
1. A person at the **Reception Desk** gives the applicant a number.
2. The **Office Staff** collects the applicant’s name, proof of identity, and proof of address.
3. The **Office Staff** administers a vision test.
4. The applicant may be sent to take a written test at a **Computerized Testing Station**.
5. After the application is approved, the **Office Staff** takes the applicant’s picture and issues final paperwork.

The process map looks like this:



Steps 2 and 3 have been combined into the single step “Take Application” because the *same* person performs both steps at the *same* station with *no waiting* between the two steps. There’s little to learn by separately tracking steps which use the same resources and have no waiting between them, so these are combined to create a simpler process map.

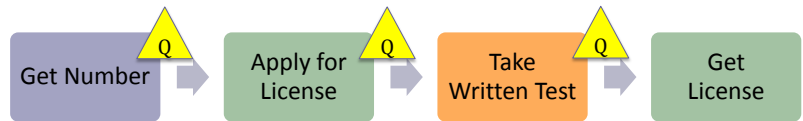
The Visual Planning Board based on this process map looks something like this:



Follow the Work, not the Worker

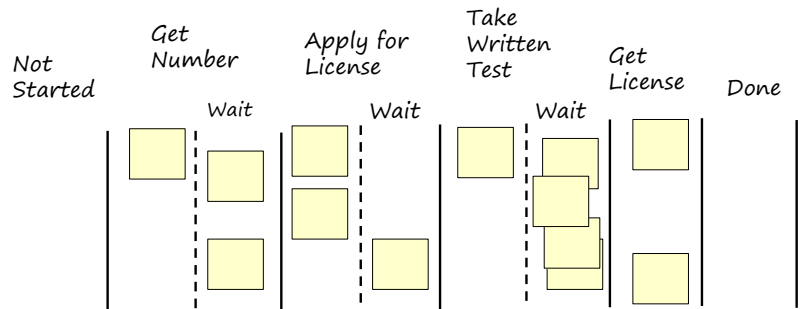
Does our Visual Planning Board accurately depict the experience of getting a new license? What is missing? That's right, the waiting time! Much of the time spent at the licensing office is spent sitting and waiting, not doing something. From the point of view of the office staff, they are always busy. But from the point of view of the applicant, a lot of time is being wasted. This waiting time is often costing the organization far more than anyone realizes. A Lean process map makes this waiting time visible by drawing the process map from the point of view of the job, not the workers. Here are the activities:

1. Get a number from the **Reception Desk**.
Then wait until called (shown as a yellow triangle labeled "Q" for "queue")
2. Give name, proof of identity, and proof of address to the **Office Staff**.
Take vision test.
Then wait until called
3. Take written test at the **computerized testing stations**.
Then wait until called.
4. Go to a different member of the **Office Staff** and have my picture taken, and receive my final paperwork.



The waiting is shown on a Visual Planning Board as a sub-category of the step before it.

Now it's much clearer how many people are waiting rather than being actively served.



The waiting time strongly affects how the applicants assess their experience at this office. The applicant wants to minimize the total time spent at the office. If a large percentage of that time is spent waiting, reducing the waiting time will pay off more than reducing the time it takes the staff to take an application, administer a test, or issue a license.

Stop Starting, Start Finishing

With the board laid out from the point of view of the job, it's pretty easy to tell what is going at any given time. Traffic jams in particular are quite visible. Do you see the traffic jam on the Visual Planning Board above?

When a traffic jam develops, stop starting new jobs. Clear the jam by finishing the jobs already in progress, borrowing staff if necessary. For instance, one of the office staff who normally takes applications could issue licenses for an hour. At the end of the day, more work gets done if the system is kept clear of traffic jams.

The Bottom Line

The Visual Planning Board makes the flow of work through your organization visible. Tracking the work (not your workers) and paying attention to waiting time can make it much easier to see where a small process change might have a big payoff for your team.

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About the Author



Kathy Iberle has been working with agile software development and Lean development teams for many years. Kathy recently retired from Hewlett-Packard after a multi-faceted career as a developer, quality engineer, and process improvement expert in a variety of product lines. She is now the owner and principal consultant of the Iberle Consulting Group. Kathy has published regularly since 1997, served as co-chair of the Program Committee of the Pacific Northwest Software Quality Conference (PNSQC) in 2009, and participated in the invitation-only Software Test Managers Roundtable for five years.

Kathy has an M.S. in Computer Science from the University of Washington, and an excessive collection of degrees in Chemistry from the University of Washington and the University of Michigan.



13504 NE 84th St.
Suite 103-241
Vancouver, WA 98682
360.852.1676
www.kiberle.com
kiberle@kiberle.com