

On The Job: At The Office

Does Your Labor Know How to Be Productive?

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A productivity skill-level test

As an electrical contractor or a project manager, the million-dollar question is “How do I get the guys to be more productive?” How often do you ask yourself this question, and how often are you surprised that the labor does not think of solving job productivity issues in what seems to you the most logical way?

Well, we now have the answer to this question. Based on our research and work with various contractors, we have found the real issue is typically not that the labor does not know

how to be productive, but rather the difficulties lie with the system as designed by the contractors and project managers.

We learned some things while developing agile construction, which is construction characterized as being lean and responsive. We ran into the fact that no one—not unions, the contractors or colleges and universities—teaches the labor anything about system productivity. System productivity is the primary factor affecting the job’s overall productivity. A correctly designed and applied system reduces the nonvalue-added work, such as material handling, on the job site. However, it became clear that nonproductive time and nonvalue-added work have different meanings to the labor than they do to the contractor.

For example, suppose the project manager orders all the material at once and has it shipped to the job site. When the labor receives the material and stores, moves or returns it, the project manager thinks this work is productive. He is giving the contractor a full day of work for a full day of pay. He does not know or, most of the time, even care if the contractor gets paid for material handling. He is doing what he has been asked to do, and he deserves to be paid for it. Who really is causing the labor to work on nonproductive tasks?

Our search for any kind of productivity skill evaluation or for courses offered by any organization to develop these skills has been unsuccessful. So, as part of a series of workshops conducted for Iowa’s National Electrical Contractors Association (NECA) chapter and the International Brotherhood of Electrical Workers (IBEW), we developed a 44-question test to evaluate the production skills of the technicians. Below is a sample of test questions:

What is productivity?

1. How hard a worker works
2. The amount of installation completed relative to the resources available
3. The amount of installation completed

Labor-saving devices and tools will primarily improve which of the following?

1. Overall job productivity
2. Individual productivity
3. Project preplanning and scheduling

Which of the following will improve job productivity?

1. Kitted orders, staged and delivered to the specified location on the job site
2. Protecting tools so you have everything you may need at any point in the job
3. Having extra labor on-site to help

Where does having material available at the right time come from?

1. Determining all materials at the beginning of the job
2. Identifying material needed for the next two to three days
3. Calling the vendor whenever material is needed

When does the location of material on the job site have the most positive impact on installation time?

1. When material is all kept together, so we can find it
2. When material is located where it will be installed
3. Material location is irrelevant. Everything will ultimately end up where it needs to be installed.

To test your organization, you can ask yourselves how your labor would answer these questions. Would the answers of your labor force be any different than those of your field supervision or project management? Would they know up to 40 percent of their time could be spent on material handling? Would they know that up to 30 percent of recoverable lost time is due to trade interference, which will add to nonvalue-added?

In order for a contractor to be agile, its labor needs to be agile. For labor to be agile, the workers need to understand and apply the basic skills of schedule management. The basic skills can be achieved with short interval scheduling. The application of the six steps of procurement management can help in this regard. Also, job productivity management, by application of Job Productivity Assurance and Control (JPAC), would be wholly beneficial.

In the next column, we will explain these three productivity tools and how they fit into agile construction and a truly productive job site. **EC**

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