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Article Review #7

Inspections – Some Surprising Findings

This article is revolved around the idea that inspections are the single most important engineering practice. Better than any type of technology you can get your hands on, inspections will do a superior job error-checking and they do it with much less cost. Studies say that inspections alone can find 90% of the errors in a software system before the first test is even ran. However, there are downsides to going down the inspections route. Firstly, it is undeniable that manual inspections are exhausting work for any employee. After just one or two hours the participant will usually be too drained to do any more for the day. And although the costs are better than most technology out there, paying professionals to inspect can still rack up the bill. Since the work is so rigorous, most companies perform little to no inspections on their software even though it has been shown to be the most productive and cost-efficient way to remove errors.

There were two main points that the author was trying to make with this article. Number one was to show how inspections can be utilized as an important tool for software technology companies. Number two was to emphasize what the research on inspections say regarding the effective ways to conduct inspections.

The first inspection method that this article gets into is called Fagan inspections. Fagan inspections are formal inspections that involve assigning specific roles and providing participants with pre-inspection training. Is Fagan the best way to approach inspections? The research suggests otherwise. In a study conducted by Rifkin and Deimel, they tested a new way inspection preparation and compared to the effectiveness of the Fagan approach. The researchers were concerned with how sufficient the Fagan approach was with eliminating post-release errors (errors found my customers). The research showed that this new approach saw a 90% reduction in post-release errors compared to the Fagan approach. Another study by Porter and Votta saw similar results, showing that the new approach reduced more errors compared to Fagan.

So, are meetings now the best way to conduct inspections? Again, the research showed, “probably not”. The problem with meetings is that they tended to negatively impact progress speed by an average of two weeks. A study by Votta done in 1991 showed that meetings only improved error correction by 8%. Is slowing down the whole operation for two weeks worth such a small increase in error correction? Most companies think not.

Multiple individual readers is the best approach to take according to the research. Some studies suggest that at least two inspectors are ideal, while others recommend between three and four. This article caught my attention because I just read about the importance of code review tools last week and reading the other side of the argument was intriguing.