Testing as an Afterthought:
Recovery Is Painful But Possible

What to do when reality bites, and it becomes evident that proper testing is NOT something business analysts do in their spare time.

The meaning of the word 'testing' varies from organization to organization and from project to project. Compared to ten years ago, most everyone understands and agrees that testing is the execution of some user-like actions that should occur before a system or product is shipped to customers.

However, it is still rare for companies to take a systemic view of testing as the process that starts at project inception and continues until after a system goes into production, and in addition to finding defects in the product, plays an organizational role of linking the project's multiple groups and providing a view into the project's readiness and risks.

It is quite typical for organizations to start taking urgent steps to improve testing only when a project is in clear danger of being behind schedule, over budget, or suffering from apparently poor quality. Often that is the first time management addresses Quality Assurance as a strategic, critical matter, and is more likely to invest in QA. If that is the case, it would be beneficial to implement measures that would not only attempt to put out the fires in the current project, but also laying the groundwork for a more strategic, ordered approach to QA and testing in the future. This could both rescue the project at hand and prevent such situations form happening on other projects.

When a project is in crisis, companies often call on specialist testing vendors to rescue the situation. Being one such specialist firm, we can say that outsourcing may be a good interim solution, but not a panacea in and of itself, and that bringing in a specialist does not solve the problem immediately. Companies should consider it as a first step in improving their QA. There are also other tactical steps companies can take to alleviate the immediate crisis:

1. Add resources to assist with testing the existing scenarios; even if the scenarios are not in perfect state, extra resources will help increase test coverage. Unlike development, testing efficiency can actually grow with adding more resources (if defect review and management process is adequate and subject matter experts are available).

2. Allocate ~2% of all testing resources to on-going exploratory testing; consider involving subject matter experts in exploratory testing to cover more terrain.

3. In case there are no functional test cases, test directly against the business requirements. Notes taken by testers during this testing can serve later as a basis for regression test cases.

4. Work on updating/improving the quality of test cases in parallel with testing.

5. Tune up defect management process. A test specialist should review each new bug to avoid logging duplicates, environment-related issues, or issues caused by incomplete new software. New defects lists should be published to the team at least daily, and daily defects review meetings should be held with representatives from all development groups and all business streams.

6. Provide daily quality reports, dashboards and charts to the management showing opened and closed defects ratio.

All these measures, although important, are essentially band-aids, and there is no guarantee that the crisis will not be repeated on the next project, unless broader steps are taken to address the QA process. For lasting impact on quality, strategic measures need to be implemented in parallel with tactical solutions. Allied's proven methodology for designing and deploying impactful QA strategies includes the following steps:

1. **DISCOVER |** In order to create an effective QA strategy, we recommend forming a dedicated team of 2-4 specialists (entirely separate from resources addressing the immediate QA needs) for the discovery phase, including examining existing QA processes and documentation and interviewing staff. Getting team members to help in this process is often difficult because it may interfere with their ongoing work, or because they are reluctant to the idea of outsourcing. Including a well respected and highly positioned manager in this QA strategy group can help address this.

2. **PLAN |** A well thought out strategy will include various aspects, such as developing stable test environments, setting up the test scripts repository, establishing the defect management process, documenting transition plan and milestones, etc.

   The key to the success of the newly designed strategy is acceptance and buy-in by both the management and the teams. To achieve this, all groups involved should participate in the ongoing strategy reviews and provide feedback throughout the entire process. The feedback may take several iterations; first input is provided on the existing processes, then after reviewing and commenting on the first drafts of the strategy, stakeholders sign off on the final version.

3. **LAUNCH |** It is important to properly plan the transition and gradual rollout of the QA strategy, which should be agreed to by all the stakeholders in both the client and the vendor organizations. Many large organizations have multiple teams and/or vendors contributing to development programs, and since many of them may be affected by the changes, careful coordination is crucial.

4. **RUN |** For the QA strategy to lead to desired results, its implementation needs to be properly enforced and monitored. This requires accountability and active participation on the part of high-level resources in the organization.

One of the common disconnect that happen at this stage has to do with a situation where one group of consultants is tasked with writing a strategy, and then other resources are responsible for implementing it. In our experience, plans and strategies that are created by the same people who are subsequently responsible for delivering on those plans have a much greater chance of achieving desired results.
To summarize, while it is possible to recover from the results of neglectful attitude towards QA and testing, is can be quite painful, especially when it's done in parallel with critical testing tasks on an ongoing project. Creating a workable QA strategy, organization and process will be much more effective and cost effective if planned in advance.