A Pragmatic Approach to Improving Your Testing Process

By
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What’s it all about?

- Process of self help
- Step by step guide
- Practical and pragmatic
- Take some ideas
Successful Implementation

- Executive leadership and management commitment
  - owner and budget
- Clear statement – why change is needed
- Vision on how the organisation will be different
- Sound, comprehensive recommendations
- Sound implementation strategy and plan
- Adequate resources and time
  - support for questions and practical help if required
- Communication
  - plans, roles and responsibilities, benefits, progress and resolutions
- Willingness to change

Process Hierarchy

- Company Baseline
- Quick wins
- Test strategy
- People
- Tools
Gather the facts

- Views on quality of application from your staff
- Costs – project and testing
- Time allowed / required
- Number of failures reported in live
- Cost of fixing a failure in live
- Current metrics recorded / used (Why?)
- SWOT analysis

SWOT Analysis

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weakness</th>
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</thead>
<tbody>
<tr>
<td>1. Knowledge of staff</td>
<td>1. Don't learn from mistakes</td>
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<tr>
<td>2.</td>
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<td>3.</td>
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<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
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</thead>
<tbody>
<tr>
<td>1. Dynamic market place</td>
<td>1. Competitor pricing</td>
</tr>
<tr>
<td>2.</td>
<td>2.</td>
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<tr>
<td>3.</td>
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Gather the facts – How?

- Anonymous internal questionnaires
- Interview staff
- Online feedback - customers
- External people - consultants
- Buy a competitor package for comparative evaluation
- Run project retrospectives
- Brainstorming meetings
- Past project reviews

Lessons to learn

The lessons pilots can teach surgeons

By Jane Elliott
Health reporter, BBC News

Before take-off, every pilot needs to brief their crew about what to expect.

Pilots say this brief and debrief system has reduced errors and made flying safer, and a growing number of NHS doctors think this system should be adapted - to make surgery safer.

Avoiding errors

A report by researchers at the University of York claims that accidents, errors and mishap in hospital affect as many as one in 10 in-patients - but that up to half of these were preventable.

One doctor who has trialled the brief and debrief system in two units at his hospital says incidents were reduced by between 30-50% over the period they used it.
Analyse the results

- Compare with similar organisations by:
  - using your knowledge of others in your organisation for their perspective
  - talk to people outside your organisation to get their views
  - talk to consultants/contractors for their views
  - rate specific assessment areas to record a score

Be conservative
Be able to justify your results if questioned

Assessment Areas - Examples
Identify Improvements - examples

Quick Wins (within 3 months)
- introduce templates
- create checklists
- introduce reviews
- write/update the test policy
- develop metrics

Medium term (3–9 months)
- write/update the test strategy
- hold project retrospectives
- establish a career structure/job descriptions
- select and introduce training
- effective regression testing
- review and develop the quick wins

Long term (9 months+)
- establish funding for more expensive activities
- engage senior support for the recommendations
- introduce any organisational changes
- establish test automation
- review and develop the previous steps
Present results to Management

- Create an implementation strategy and plan
- Clearly state what needs to be completed
- What alternatives are there?
- What challenges could you face?
- Produce a summary report
  - use graphs, tables, words and colour
- Present the key facts to explain them
- Translate benefits into monetary gains – tangible
  - be conservative with claims and figures
- Show what the result of no change could mean

Don’t do too much too soon!

Metrics

- What, when and to whom?
  - test effectiveness - Defect Detection Percentage (DDP)
  - costs / budget
  - test efficiency – bugs per hour of testing
  - number of defects found and their severity
  - consensus based confidence
  - system availability

- Frequency of distributing information
- Make sure the metrics add value

Keep them simple, relevant and explain them
Consensus-based confidence examples

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<thead>
<tr>
<th>Question</th>
<th>Target</th>
<th>Confidence Rating</th>
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<tbody>
<tr>
<td>Reliability?</td>
<td>4.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Usable?</td>
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<td>2.7</td>
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<tr>
<td>Tested enough?</td>
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<td>3.1</td>
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<table>
<thead>
<tr>
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<th>Target</th>
<th>Confidence Rating</th>
<th>Target</th>
<th>Confidence Rating</th>
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<tr>
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<td>4.1</td>
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<td>Order process</td>
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<td>3.3</td>
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<tr>
<td>Batch</td>
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<td>MIS</td>
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<td>1.9</td>
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System Availability

Based on 10 hour day we lose 2 days of down time!
Project Retrospectives

- Compare the concept to your school report
- Have specific open questions to ask
- Hand out questions at the beginning of the project
- Hold interim reviews
- Collect data during the project
- Don’t be drawn into a witch hunt
- Action attendees with specific points
- State where the information will be lodged
- Pass copies to existing projects
- If project retrospectives don’t happen do your own testing one

Reporting success

Diagram showing various reporting methods such as Newsletter, Intranet, Peg board, Forums, and Presentation.
Keep it alive!

1. Let changes settle
2. Review what is happening
3. Provide support and guidance
4. Do it yourself

QUESTIONS?

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