Creating & Leading the High Performance Test Organization

2006 Software Test & Performance Conference

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Outline

Class 502 – Part 1

1. Effective Communication
2. Using Operations Planning

Class 602 – Part 2

3. Hiring & Performance Management
4. Handling the "Hidden" Bits

Introduction

- Background on the class, 2 software testing classes –
  - Effective Communication Workshop
  - 7 Habits of Effective Leadership Workshop
- Emphasis on –
  - LEADING the High-Performance Test Organization
  - Operational Planning
  - Testing Centric Challenges – Team dynamics and value & impact differentiation
- It's OUR class – please participate and share your lessons learned, challenges, approaches, ideas, etc.

Effectively Communicating Test "State"

Topics:

1. Keys to effective communication
2. What different about test communication?
3. Dashboards, status reports & project updates
4. Verbal communication effectiveness
5. Don't forget your defect reports

Communications - The Problem

You're in the middle of a testing cycle for a business critical project. You're testing a single component of a large system - *roughly* 10 testers are on your team. The Vice President of Software development walks up to you in the lab and asks you – "How's it going?"

- What do you say?

He challenges you on several defects that you've entered – disagreeing on priority and severity

- How do you respond?

This is a great opportunity. You're either ready for it and respond well or you don't…which do your choose?

The Problem

Same situation, although time has passed and the project has missed several of it's planned Beta dates and things are "dicey". You're in the middle of the "last" testing cycle prior to going to Beta test. You've found some regressions that you "suspect" will impact the products ability to go to Beta. The Vice President of Marketing walks up to you in the lab and asks you – "How's it going?"

- What do you say?
- How do you say it?

Another, even more critical opportunity to make an impression…

The Situation

- We're in communicating situations all of the time
- As Test, QA and Process engineers -
  - We're representing the product, it's correctness, completeness and overall quality
  - We're representing our test team and ourselves
  - We're the living embodiment of "how is it going?" And "is it ready yet?"
- I refer to this ongoing and ever present communication as a public relations effort
- It's all of our jobs and we do it anyway – so why not learn techniques for doing it often and well?

Introductions Breakout

- Break into groups of 2
- Take a minute or two and introduce yourselves. Share on:
  - Background information (Overall experience, where you work, etc.)
  - Biggest challenge you face at work
  - Ideas for facing that challenge
- I'll time each exchange
- Let's debrief…

30 Second "Commercial"

- In job search circles, they refer to your developing and delivering a "30 second commercial" for networking. It's a -
  - Quick introduction
  - Concise overview of your background
  - Includes your professional history
  - Delivered to fit the situation, allowed time and specific audience

- You take the time to develop your "commercials" from your resume, you should have at least a few – to many of them. They're targeted towards different audiences and situations.

30 Second "Commercial"

- This same technique applies very well to testing status. Always practice your commercials:
- ***Current work status:***
  - What are you working on, what are your recent successes and your challenges. Very importantly - what's next?
  - Do you need any help? (escalations, ideas, alternatives, workarounds, etc.)
  - If you have one message to send for status – what would it be? Make sure you communicate it!
- ***Current product status:***
  - Overall view to your area of testing responsibility
  - What is the overall product stability, feature set maturity and performance?
  - High level defect trends, schedule status and work projections

Characteristics

- Keys to Effective Communication
  - Concise communications – remember the “Top 1/3” rule
  - If you could only say 2-3 things, what would they be?
  - All forms matter – written, verbal, non-verbal, defects
- Target your communications
  - Their functional role and level within the organization
  - Their point of view (adopt their POV - empathize)
  - Personality type – data vs. feeling in decision making
  - What they want to hear and what they need to hear
  - What will they do with the information you give them
  - Can they “handle” the truth and how much of the truth

Breakout

- 30 Second Commercial, Breakout #1

Dashboards

Project Name: Snoopy **Test Mgr**: Lucy	**DASHBOARD** **Reported on**: 12-4-2005
Key milestones 10/1 – UI prototype 11/1 – B/E complete, phase 1 12/1 – UI v2 available 2/1 – Alpha ready	**Team** / **Overall Status** UI functionality, GREEN, ready for UI prototype UI usability RED, waiting for approval for usability consultant MWare, business logic YELLOW, test case development behind by 2 days Lab & infrastructure GREEN, fully prepared for prototype testing Tools GREEN, CM and defect systems ready for release Automation N/A, at this stage, automation not engaged PM **TESTING STATUS - GREEN**
Release Dates Alpha: 2/1 Beta: 3/1 Production: 4/1	**Major Issues and Risks** 1) Resources, need 1 usability tester and 1 MWare test resource 2) Resource, still running too lean and vacation season approaching 3) We had planned for parallel automation development, resource constraints prevent that. Long term effect to efficiency on regression testing

Quality Assessment

- What is it? At any point in time you may be asked to assess the current quality of the product under test ---
  - Formal, written assessment
  - With a current, data driven view to status
  - With your observations, opinions and insights
  - Focused towards making a "next step" decision based on "next step" criteria (Phase, Beta, Release or others)
- It is the template for the above and one of the *primary vehicles* for testing PR
- Make sure you're always ready and prepared for an assessment
- Be true to yourself and your functional responsibility, if it's not a "Go", be prepared to recommend a "Stop"

Quality Assessment

Overview of Product Status	■ Current release version ■ # of test passes completed so far, # planned ■ Test dynamics: # of testers, test cases
Testing Status	■ Overall # of tests – passed, failed, deferred and blocked. Current coverage. ■ Issues, challenges and risks
Defect Status	■ Current totals, # open, # high priority/severity ■ Trends supporting the software release plan
Recommendations	■ Trends & observations supporting test and project plans ■ Connection to business requirements, schedule & release criteria

Quality Assessment

- **What the assessment *is* –**
  - It is a forum for test to communicate accurate, honest product status from the POV of testing and recommend next steps based on current release goals
  - It is intended to present information for the *whole team* to use in making "next step" decisions
  - It is crisp, clear, simple and targeted towards the "receiving" audience
- **What the assessment *is not* –**
  - It is not 5+ pages of information
  - It is not a defect by defect analysis nor exhaustive graphs and charts
  - It is not intended as a win-lose situation (test "win" or test "lose")

Defects – Windows into your Work

- Communication starts at the individual defect level
- Every defect is a window into your work. What will your team read and how will they *perceive* it?
- Beyond the "raw" data, consider –
  - Your audience – who will be reading the defects, what do they need to see
  - Insure that you explain things simply, thoroughly and clearly
  - Don't speculate too much, keep it data driven and factual
  - Don't let your feelings creep in
  - It should "connect" the problem to requirements - customer - business impact
  - It should stand alone and be complete
- Think of it as advertising your home for sale – use that same level of craft & care!

Defects – Windows into your Work

- 5 heuristics for crafting a solid defect "message" -
  1. Target the "core level" of your audience (high technology startup, vs. a telecommunications giant vs. OS provider)
  2. Clear, concise and meaningful description - headline
  3. Include steps, time and level of difficulty to reproduce
  4. Clearly identify the impact to:
     - Customer
     - Requirements
     - Business – scope, potential schedule & work impacts
  5. Short, with most of the important information in "front" - (again apply recruiting techniques - only the first 1/3 of the first page of a resume is usually read)

- Sometimes it's useful to review "good" previous defects to get a feel for the cultural expectations

Defects – General Guidelines

- According to Kaner, Falk & Nguyen –

A good report is written, numbered, simple, understandable, reproducible, legible and non-judgmental

- Simple: single defect, focused problem
- Understandable: context to the product, domain and development staff (terms, technology, experience), connected to the audience
- Reproducible: details, directions, ease setup, include supporting documentation
- Legible: clear and precise prose, time taken to do it right
- Non-judgmental: just the facts, no "attacks"

Defects – General Guidelines

- According to Kelly Whitmill –
  1. Condense – Say it clearly but briefly
  2. Accurate – Is it truly a defect?
  3. Neutralize – Just the facts
  4. Precise – Explicitly, what is the problem?
  5. Isolate – What has been done to isolate the problem?
  6. Generalize – How general is the problem?
  7. Re-create – essential environment, steps, conditions
  8. Impact – To the customer, to testing, safety?
  9. Debug – Debugging materials (logs, traces, dumps, environment, etc.)
  10. Evidence – Other documentation proving existence

Using the Operations Planning Process

Topics:

1. Vision & Mission Setting
2. Using collaborative Workshops
3. Operations Planning
   1. Annual review
   2. Project workflow planning
   3. Budgeting
   4. Team development

Setting the Stage

Vision

- A vision is a statement about what your organization wants to become
- It should resonate with all members of the organization and help them feel proud, excited, and part of something much bigger than themselves
- A vision should stretch the organization's capabilities and image of itself.
- It gives shape and direction to the organization's future

Mission

- Mission or Purpose is a precise description of what an organization does
- It should describe the business the organization is in
- It is a definition of "why" the organization exists currently
- Each member of an organization should be able to verbally express this mission

Setting the Stage

- Vision is a critical characteristic for a good leader.

The eternal dilemma is keeping your eye on the ball of today (Mission), while playing on the field of tomorrow (Vision).

--- Galen

Starting Projects

- Team organizational structure
  - Clear roles & responsibilities
  - Necessary skills
  - Complementary fit (experience levels, attitude)
- Chartering
  - Defining requirements & scope
  - Design, architecture, tools, approaches
  - Getting to the true *purpose* of the effort. Define what success will look like.
- Establish working patterns
  - Construction, progress tracking, re-work
  - Processes and teamwork
- Enroll your team to meet the goals

Using Collaborative Workshops

- Card based or stick note planning workshops
  - Wideband Delphi, XP card planning / planning poker, SNP
  - Adjust the “level” to the project state, goals & expectations
- Get the team together
- Analyze the project landscape
- Brainstorm
  - Tasks, issues & risks, workflow & schedule
  - Date alignment planning, front-back-front passes
- Gain team commitment

Operations Planning

- Operations Planning
  - Performed on an annual basis, include team retrospectives, 12-18 business views (*guess if you have to*)
  - Annual performance review and goal setting at the team level
  - Short term strategy (projects, initiatives)
  - Team staffing (core competency, gaps and training plans)
  - Budget
- Primary purpose
  - **Internal** planning & group communication
  - **External** exposure for support plans and gaps / needs

Ops – Group Overview

- Setting the stage for your team
  - Functional Group
  - Period Covered by the Ops Plan
  - Mission & Vision
  - Differentiation
  - Budget
- I like to emphasize the differentiation aspect. How will the organization make a *significant and visible* impact to the overall organization?

Ops – Projects

- Project Initiatives, for each project analyze:
  - Overview
  - Resource requirements (human & equipment)
  - High level budget (equipment, tools
  - Core competency "gap" analysis
  - Resource application / assignment curves
  - External dependencies
  - Challenges

Ops – Team Development

- **Team Dynamics**
  - Organization chart
  - Leadership chart
  - Key roles & responsibilities
  - Anticipated changes
  - Group growth & promotion planning
  - External relationships
- **Group Training**
  - Core competencies
  - Group evaluation
  - Training plan – group & new hire

Break and Breakout

- Operations Planning, Breakout #2

Hiring & Performance Management

Topics:

1. Setting up an effective hiring process
2. Group interviewing techniques
3. Making sound decisions
4. Creating high impact teams – complementary skills
5. Coaching for performance – effective feedback, mentoring & coaching skills

Setting up an effective hiring process

- It starts with a commitment to building your team
- Clear goals for your needs
- Don't be afraid to be disruptive
- Craft a unique interview for each position
- Prepare for the interview, clear roles and responsibilities
- Do phone screen
- Consider team based interviewing
- Debrief as a team, try to achieve consensus, or at least no firm opposition (no thumbs down)
- Always go with your "gut"

Group interviewing techniques

- Multiple group interviews
  - Group has a specific focus – technology, skill area, team fit
  - Have a question asking protocol
  - Observers (answer + body language)
  - Caution: prepare the interviewee for it, no more than 2-3 interviewers

- Auditioning
  - Prepare a “piece of work” – code, architecture & design, test
  - Present it in front of a group – 30 minute presentation, Q&A
  - Looking at the work AND the presentation abilities

Group interviewing techniques

- Information sharing
  - Demo products that they’ll be testing
  - Share company and domain information
  - Lab tours, office tours

- Not so great practices
  - Too many interviewers
  - Lunch interviews
  - Poor group combinations, little planning, interrogation

- What about testing a candidate – group experiences?

Making sound decisions

- Decide as a group
  - Open with reminder of position description and key goals
  - Roundtable discussion, pro/con, differentiators
  - Drive to consensus – Yes, No, Neutral/Support
- Decisions go both ways
  - Ensure the candidate has sufficient information to make a decision (60:40 information transfer)
  - Share key positions challenges or expectations with the candidate, be passionate; see how they respond

First Impressions

- First Impressions
  - Are critical - it takes more time to “recover” than you think
  - It takes time to build trust
- Notion of “Entering” new employees
  - Enroll them as part of the interview process
  - Work area preparations and introductions
  - Setting expectations and effective mentoring
  - Weekly 1:1 meetings and 30 day goal setting

Coaching for Performance

- What do I mean by Coaching?
  - Performance management, timely and honest feedback
  - Finding and receiving feedback
  - Managing group performance
  - Motivating your team
- Why so hard?
  - Because it deals with PEOPLE
  - People aren't neat, tidy, one sized, or computer programs
  - So easily avoided or handled too lightly or heavily
  - Focused forward – towards improvement
  - You get little short-term recognition for your efforts

Feedback

- Face the Challenges
  - Don't look for divine intervention
  - 100% of the time, it doesn't improve on it's own
  - More people recognize it than you realize
  - It takes time for a direction to form, so don't wait
- Learn to give feedback
  - At the point of attack and continuously
  - To all members of your team
  - Be honest and constructive, say what's on your mind, and ensure it's clear
  - Be congruent across your team

Receiving as Well as Giving

- Listen to your team…truly listen
  - Group 360 degree communications
- Learn to receive feedback
  - It's a gift from others, truly welcome and cherish feedback
  - It isn't good or bad, it simply is
  - My strategy is to gather it first, then digest it, then look for the "truth" in it, then work to adjust
  - If you don't receive it well, you won't receive it often. Be receptive!
  - It isn't just what's been said, it's what hasn't been said. Consider body language and other clues

Managing Group Performance

- Consistent principles, but tailor to individuals
- Communicate your "soft side" performance expectations
  - Energy, enthusiasm, learning, effort, stretch – over hours
  - Results – over hours
  - Attitude and effort – over hours
- Deciding who gets your time?
  - Top down, not bottom up
  - Start with your top 20% and high potential employees, then focus on the remainder – *First Break All The Rules, Buckingham & Coffman*

Motivating Your Team

- Employee's naturally "connect" to their 1'st level manager's
  - In survey's, approximately 80% say that it's the most important thing keeping them on the job – certainly in the top 5
- Show them
  - You understand the domain and technology
  - You understand the challenges
  - You understand and care for them

Motivating Your Team

- Apply effective empowerment and delegation principles
  - Realize you can't do it all – so trust your team!
  - Work your top 20%
  - Delegate even when you realize the results won't be "perfect"
  - Allow the organization to learn and, yes I'm saying it, make mistakes
- Allow decisions to made without your approval
- Create alternate decision-making models
  - Conflict can be very good. It generates ideas, alternatives, passion, buy-in, energy, teamwork

Motivating Your Team

- Recognize individual success
  - Take the time and effort to recognize those who are supporting the vision
  - Sometimes it's a simple thank you
  - Other times, peer and public recognition can be wonderful
  - It's rarely about the money
  - Don't forget their families and the more personal the recognition the better
  - Also recognize those who are "stretching" the most – remembering that effort counts

Motivating Your Team

- Communicate a compelling vision to where you're going
  - Strategic longer term vision (1 year and beyond)
  - Tactical, laser focus (steps to getting there)
  - And repeat…
- Recognize your successes and build on them
  - Recognize those that are supporting your vision
  - Take time to celebrate success – even if it's an email, meeting, day off, ice cream social, etc.
  - Share "stories" of success. What are the proud examples of the past?

Break and Breakout

- Effective Hiring, Breakout #3

Handling the "Hidden" Bits

Topic:

1. Performance Improvement Process
2. Making the hard call – You're Fired
3. Other options for performance issues and problems
4. How to manage group compensation
5. Handling confidentiality
6. Handling politics

Performance Improvement Plans

- Effective PIPs
  - Lots of energy and time!
  - Engage HR and get help. Don't always expect HR to be expert
  - Utmost confidentiality!
  - Capture as much historical context as possible
  - Provide clear, written communication
  - Problems, goals and checkpoints
  - Improvement is the individuals responsibility
  - Real-time feedback, is it working
  - Don't be afraid to pass or fail, it should fall out of the goals

Making the Hard Call

- You're fired
  - Let the process take care of itself
  - HR leads this effort, particularly legal review
  - Short meeting, less than 15 minutes, use a "script"
  - Leave first, pack later
  - Notifying the team
- It will change things though…
  - Within your team, their perceptions, your own views
- Other options?
  - Transfers, promotions, restructuring responsibilities
- Other words of advice or experience from the group?

Managing Group Compensation

- Multiple tiers to compensation
  - Salary + raises, bonus, promotions
  - You can only do so much – HR guidelines & limits
- Create a compensation strategy
  - Reward (define first) high performance (peanut butter vs. zero)
  - Messages to the team
  - Gap analysis as you bring in new hires – equity strategy
- Remember – people share salary levels, don't expect much confidentiality

Proactively Manage Up

- Where is your loyalty – Team? Management?
  - Actually, it's a bit of both
- Managing perceptions
  - They're everywhere! Are they reality? Sometimes…
  - First look to understand your perceptions - 360 degree feedback, mentors, leadership inquiries
  - Understanding your technology context and business domain is paramount
  - Being open-minded and flexible is next

Proactively Manage Up

- Effectively handling schedule pressure
  - Don’t simply agree. If pushed for a reply, buy whatever time you can. Remember, to some degree, it’s a game of chicken
  - RAD workshops are ideal forums for pulling together estimates, schedules and options
  - Always provide estimates in ranges and provide levels or areas of risk, then commit to more accuracy over time and ITERATE
  - Don’t over commit based on overtime assumptions
  - Always speak in terms of options and trade-offs

Proactively Manage Up

- Be prepared to say – No, or Yes, but…
  - Technologist have a natural tendency to over-commit. To over negotiate to over simplify.
  - Always the “Can Do” attitude is rewarded, while “Push Back” is not
- Respond with your real thoughts
  - If’ it looks like too great a challenge – say why. Don’t be afraid to say what’s on your mind – be honest and emote
  - Be prepared to be a lone voice. Saying “No” takes a great deal of courage
    - Career risk and trust factors come into play
    - Use it ONLY when necessary, don’t become a naysayer
    - Remember - it does get their attention

Proactively Manage Up

- If you are going to say No or Yes, but…
  - Provide some context – Explain why it's not possible, the limitations, the risks, the possible business outcomes
  - Provide some options – Explain what might be possible, trade-offs, if only…
  - Provide some decision criteria – Provide details (time, resources, $$$) on critical decision criteria
- Remember, *they* can "Handle the Truth" or at the very least need to be "Hearing the Truth"

Proactively Manage Up

- Buffering 101
  - Your there to help, notion of servant leadership
  - In the Scrum Methodology, the Scrum Master is there to remove impediments to progress. They're also responsible for "buffering" the team from unnecessary interruptions and activity.
  - Expose the success and power of the organization, but don't let the organization derail your focus
  - Always keep your team focused on - Core functions, priorities and the "next" two weeks

Provide Compelling Leadership

- Handling ambiguity
  - Not everything will be clear or known. Learn to deal with that
  - A decision made immediately with 50% clarity is better than a decision made later with 100% clarity
  - Failure is part of the game of ambiguity. Fail small though.
  - Guide your teams through it with confidence – mapping next steps clearly and precisely to your vision, mission, purpose and goals

Provide Compelling Leadership

- Dealing with change
  - You can't simply react to change or ignore it. You must lead your teams through it
  - Grasp the change
  - Map it to your function and role
  - Look for the impacts and requisite adjustments
  - Make the strategy and journey visible within the team
  - Be cognizant of the change adoption curve and be patient
  - *Remember, change has a counterpart called complacency. Don't change for it's own sake, but do change.*

Provide Compelling Leadership

- Balance is the Key!
  - Tactical vs. Strategic
  - Now vs. Future
  - Delivery vs. Maintainability
  - Initial cost vs. Long term cost
- Weighed against your point of view – short term vs. long term
  - You at least have to *appear* to be interested in the long term – or maintain a "Longer Term Mindset"
  - Shorter job tenures equate to a greater short term focus

Politics

- Decide on the landscape in your organization
  - Activity level, power players
  - Determine what matter – role, function, perception, skill levels
  - It matters to your team as well
- Always manage to your central boundaries
  - Character, ethics, comfort zone – staying true to yourself
  - Apply the Golden Rule – treating others how you would like to be treated
  - Be honest and tell it like it is
  - It's about the results!

Break and Breakout

- Executive Negotiation, Breakout #4

Wrap-up & Questions

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