Lessons Learned from Conducting Industry Surveys in Software Testing

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Outline

• Motivation
• Overview of our Empirical Studies
• Key lessons learned
• Some recommendations for others
Motivation

• Who makes a good software tester?
• How do testing teams form, evolve?
• What personality characteristics impact software testing performance?
• What do testers do?
• How can we best assess testers?
• Do tester personalities differ significantly in any way from other IT professionals?
Studies with Industry

• Survey 1: Factors Influencing Software Tester Performance (Moderately detailed survey)
• Survey 2: Worklog Collection of Software Testers (Multi-week data collection)
• Survey 3: Testing Manager Opinion on a New Performance Appraisal Form for Software Testers (Initially very detailed survey, modified to light-weight due to poor response rate)
• Survey 4: Survey of Personality of Software Testers and Related IT Professionals (Light-weight survey)
Key Lessons Learned

• Participant recruitment – how, who
• Response rate – how to improve
• Invitations – big vs small
• Collecting consents – paper vs electronic
• Size of questionnaire
• Nature of participation & motivation
• Data analysis
• Ethical approvals
• Data security (esp for web-based data collection)
Recommendations

• Group invitations are helpful - moderators need convincing of the worth
• Straightforward questionnaires are more popular than surveys requiring more time to form responses
• Marketing is important to get participants
• Simple methods for participants to indicate informed consent are helpful
• Design surveys with different data analysis methods in mind
• Plan for time-consuming Ethics approval
• Ensuring data security critical