

Testers must play in the Champions league: the pre-requisites

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Agenda



- Introduction
- Interpretation of the problem
- Inventory of the current situation
- Presentation of the curriculum
- Results up till now
- How to proceed?

Introduction



- Deployed at Bartosz ICT BV
- >20 years in testing
- Co-author TestGrip ,TestFrame, Project de Baas, Quality Supervision
- Test expert online magazine Computable
- Publication areas; Testproces Improvement, BI-testing, Testautomation, Academic tester, etc.
- Review committee Valid2013
- Founder of the “Houten Groep”
- Member of several working parties Dutch Testing Society:
 - Model Based Testing
 - Academic tester
 - Quality Supervision



There are several reasons to start working on this topic;

- Testers must become more professional
- The complexity of the IT is increasing. Test must increase the quality level to stay in line
- Test (must) become a true profession
- New development methods like Agile requires other skills

Investigate the possibilities of a test education in the Netherlands:

The working party has defined 4 goals:

- Inventory of the current situation in the Netherlands
- Is there a need for a new study?
- Defining a curriculum for the new study
- How to implement the new study?

The current situation:

- Several Universities pay attention to testing
- Not really embedded
- Focus on some elements
- Not mature

Inventory of the current situation



Inventory current situation test education in the Netherlands

Respondents:

Type of university	Total number	Number of respondents
Universities	11	2
Universities of applied sciences	29	8

Current situation:

Subject	Year				Type of University
	1	2	3	4	
Introduction to testing	X				UAS
Testing techniques	X				UAS / U
Test organization				X	UAS
Test phases		X			UAS
Review of requirements		X			UAS
Test execution		X			UAS
Defect management		X			UAS
Model based testen				X	UAS / U
Testing & development methods				X	UAS
Testmethods				X	UAS
Testtypes					UAS
Development testplan					UAS
Testtools					U

UAS = University of Applied Science

U = University

Conclusions:

- No. of respondents around 20%
- Mixed picture
- General & common items are educated based on the response



The need for a new study!



- Difficult question for the audience
- Run several workshops:

Conclusion: Yes, we need!

- The minister will say “NO”
- Student reaction

Future situation



Discussion about the education:

- Complete new education regarding testing
- Minor
- Specialisation
- Combined with existing curriculum

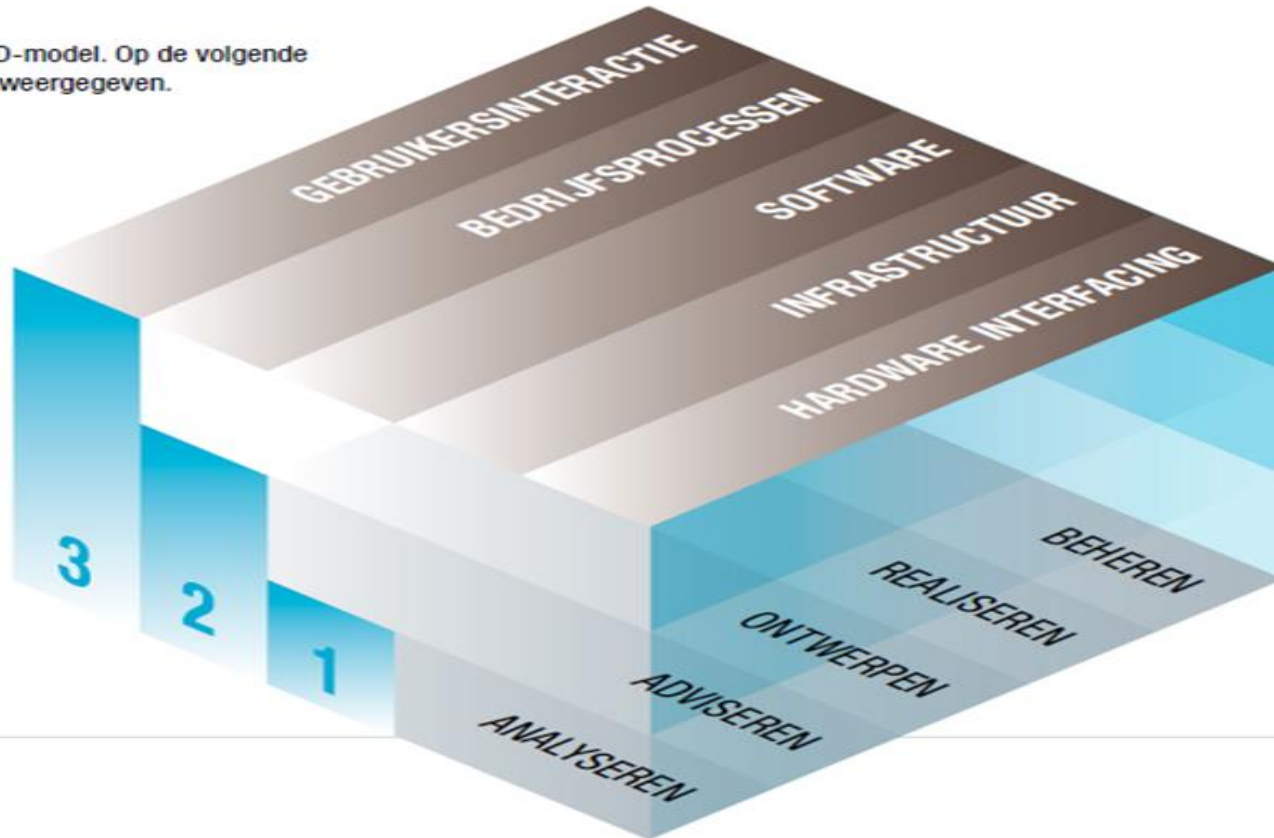
Two stage approach:

1. Develop a curriculum for Universities of Applied Science
2. Develop a curriculum for Universities

Future situation



3D-model. Op de volgende
pagina's weergegeven.



The curriculum



	Analysis (G1)	Advise (G2)	Design (G3)	Realization (G4)	System management(G4)	General (G5)
User interaction	Review of the user interaction analysis Analysis of the stakeholders Determination of the completeness by hand of usability standard	Social skills	Review of the design Simulation of the interaction process Risk-based testing Definition of the required metrics Definition of the test approach Development of the required test cases Selection & implementation of the required tooling	Execution of the test cases Test reporting Tooling	Test ware management Configuration management Root-cause analysis Tooling	Evaluation test proces
	(B1)	(B2)	(B3)	(B4)	(B5)	(B6)
Business processes	Business process simulation Assessment of the compliance	Social skills	Process simulation by hand of the acceptance criteria Modeling/ Model checker Definition of the test approach Development of the required test cases Selection & implementation of the required tooling	Execution of the test cases Test reporting Acceptance procedure	Test ware management Configuration management Root-cause analysis Tooling Knowledge assurance Testing emergency procedure	Evaluation test proces
	(S1)	(S2)	(S3)	(S4)	(S5)	(S6)
Software	Determination of acceptance criteria Test roles Audit of requirements Risk-based testing	Social skills	Defining the test plan Development of the required test cases Selection & implementation of the required tooling Software metrics	Execution of the test cases Test reporting Acceptance procedure Application of Test tooling Metrics Test environment Assemble test data Test automation Determination of data quality	Test ware management Maintainability testing	Evaluation test proces
	(I1)	(I2)	(I3)	(I4)	(I5)	(I6)
Infrastructure	Assessment of the proposed infrastructure (e.g. Togaf) Simulation of the back up & recovery plan	Social skills	Determination of the test plan Development of the required test cases Selection & implementation of the required tooling Software metrics Benchmarking	Execution of the test cases Test reporting Acceptance procedure Test automation Select test data Arranging test environments	Test ware management Maintainability testing Monitoring Infrastructure metrics Root-cause analysis Risk analysis	Evaluation test proces
	(H1)	(H2)	(H3)	(H4)	(H5)	(H6)
Hardware interfacing	Analysis of the required tooling Review of the proposed infrastructure configuration	Social skills	Determination of the test plan Development of the required test cases Selection & implementation of the required tooling Software metrics Test harnesses (Stubs/Drivers)	Simulation of processors / chips Test automation Execution of the test cases Test reporting Acceptance procedure Assemble test data	Test ware management Maintainability testing Root-cause analysis	Evaluation test proces

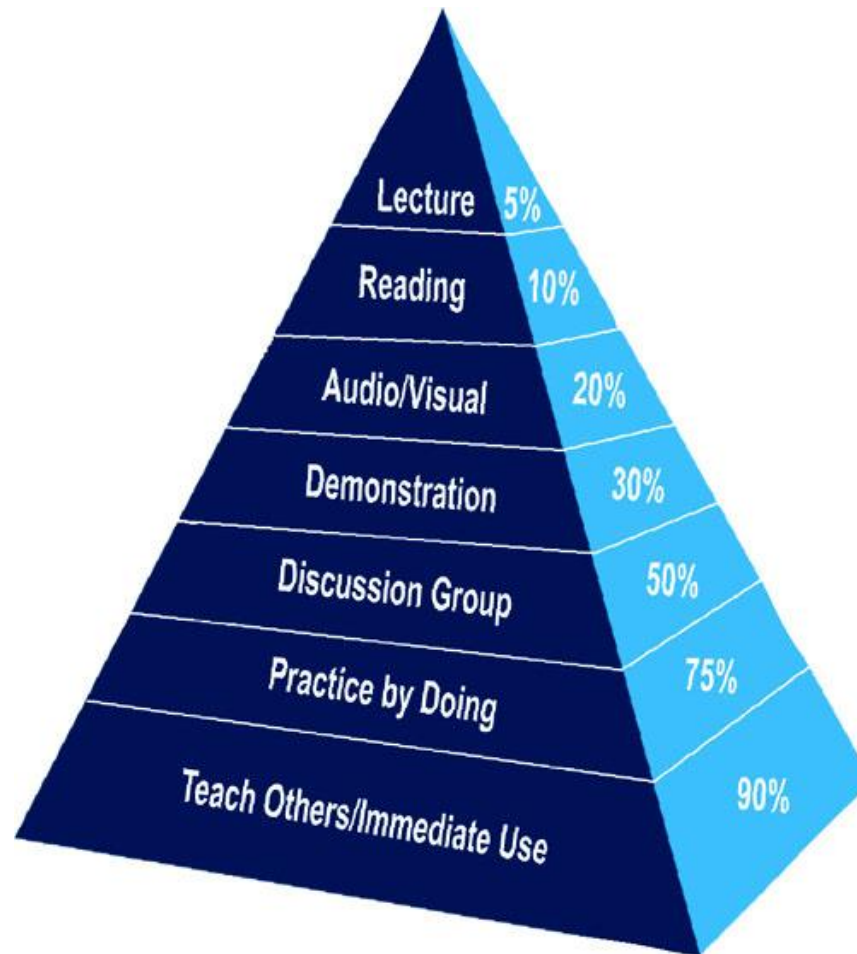
- Generic module:
 - What is testing?
 - Why testing?
 - Roles
 - Improvement models
 - Methods
 - Etc.

The curriculum



Bruikbaarheid inhoud curriculum

The curriculum



Results up till now



- 2 goals of the working party already finished:
 - Inventory of the current situation (more input is welcome)
 - Is there a need for a new study?
- 2 goals in progress:
 - Defining a curriculum for the new study
 - How to implement the new study?
- Validation of the curriculum is still going on:
 - Review council University of Applied Science
 - Workshops diverse parties
 - Valid2013
 - Dutch Testing Day
- Part of the curriculum of University of Applied Science

How to proceed?



- Finish the validation phase
- Rework by hand of the feedback
- Start the implementation phase
- Accreditation of curriculum of University of Applied Science
- Start discussion on University level

Questions?



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