

Software Quality Management

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LECTURE 1

SQM - 1

Introduction

Statement 1

- "Quality is a characteristic of thought and statement that is recognised by a non-thinking process. Because definitions are a product of rigid, formal thinking, quality cannot be defined."
- "However, even though quality cannot be defined, *you know what Quality is!!*"

Robert Pirsig (*Zen and the Art of Motorcycle Maintenance*)

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Statement 2

- "Quality is what you like!"

Statement 3

- "Quality is subjective, existing only in the observer!"
 - Just another way of saying it's whatever you like.

Statement 4

- Quality is objective, but is it *measurable and provable*?
 - What scientific instruments can be used to measure quality?

Robert Pirsig (*Zen and the Art of Motorcycle Maintenance*)

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Statement 5

- "Quality is conformance to requirements!" - (Crosby)

Statement 6

- "Quality is value to some person!" - (Weinberg)

Statement 7

- Quality is the absence of error! - (Weinberg)

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More Statements

- Quality is
 - Low maintenance
 - Having lots of short-cut features in the interface
 - High performance
 - Easy to use, intuitive interface
 - High productivity
 - To budget and schedule
 - Small amounts of documentation
 - A context sensitive help system
 - An understandable design

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Yet Another Statement!!

- "The definition (*a statement*) of quality is always *political* and *emotional*, because it involves a series of decisions about whose opinions count, and how much they count relative to one another."

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Gerry Weinberg (Quality Software Management – Vol 1)
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Pirsig's dilemma:

- If QUALITY exists in the object, then you must explain just why scientific instruments are unable to detect it ...
- On the other hand, if QUALITY is subjective, existing only in the observer, then this QUALITY is just a fancy name for whatever you like ...
- QUALITY is not objective. It doesn't reside in the material world ...
- QUALITY is not subjective. It doesn't reside merely in the mind ...

G. Schulmeyer & J. McManus (Hndbk of Software Quality Assurance - Chap 1)

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Introduction

Garvin's Views:

- The transcendental view
 - Quality can be recognised but not defined
- The user view
 - Quality means fit for purpose
- The manufacturing view
 - Quality is conformance to specification
- The product view
 - Quality is tied to the inherent characteristics of the product
- The value-based view
 - Quality depends on the amount a customer is willing to pay

G. Schulmeyer & J. McManus (Hndbk of Software Quality Assurance - Chap 1)

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Introduction

IEEE

Standard Glossary of Software Engineering Terminology:

The degree to which a system, component, or process meets

1. specified requirements, and
2. customer or user needs or expectations.

G. Schulmeyer & J. McManus (Hndbk of Software Quality Assurance - Chap 1)

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