

COURSE FOR SOFTWARE TESTING

BS (SOFTWARE ENGINEERING)
SPRING SEMESTER
FEBRUARY 2014
FOUNDATION UNIVERSITY RAWALPINDI
CAMPUS

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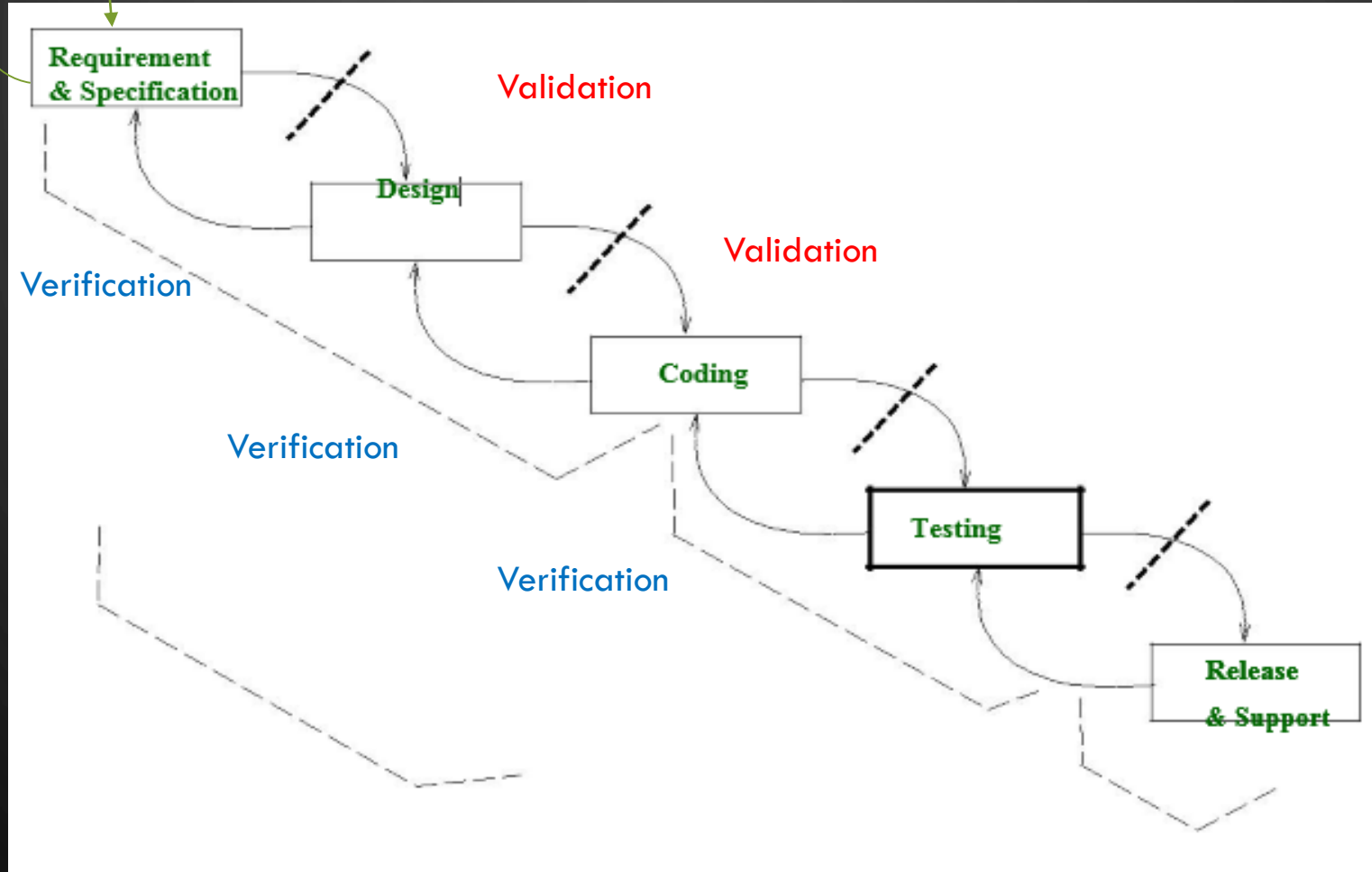
VALIDATION & VERIFICATION

QUALITY INTERMEDIATE WORK PRODUCTS (P)
THAT IS VISION DOCUMENTS, SRS, USE CASE
DIAGRAM, ERD DIAGRAM, DATA FLOW
DIAGRAM, STATE TRANSITION DIAGRAM, OTHER
ANALYSIS MODELS, SEQUENCE DIAGRAM, CLASS
DIAGRAM, TEST CASE, TEST MODELS, CODE ETC.
PRODUCES QUALITY SOFTWARE PRODUCT (P)

$1P + 2P + 3P + 4P + 5P \dots NP = P$ (COMPLETE
SOFTWARE PRODUCT)

Needs

Validation



1st RA: Which SE Artifacts / Intermediate Work Products or External Deliverable will be verified & validated & why?

2nd RA: Which Testing Activities Artifacts / Intermediate Work Products or External Deliverable will be verified & validated & why?

Verification of Technical Specifications

- Verification is concerned with determining the degree of completeness, correctness, and consistency of a work product:

Are We building Product Right?

- Verification techniques for technical specifications include:

- o analysis
- o reviews
- o walkthroughs
- o traceability

Validation

Software product is valid if it is useful for intended users and in intended environments

Are We building Right Product?

User of SRS = ?

User of ERD = ?

User of Sequence Diagram=?

User of State Transition Diagram=?

User of Class Diagram = ?

VV&T

- VERIFICATION
 - THE PROCESS OF EVALUATING A SYSTEM OR COMPONENT TO DETERMINE WHETHER THE PRODUCTS OF THE GIVEN DEVELOPMENT PHASE SATISFY THE CONDITIONS IMPOSED AT THE START OF THAT PHASE [BS 7925-1]
- VALIDATION
 - DETERMINATION OF THE CORRECTNESS OF THE PRODUCTS OF SOFTWARE DEVELOPMENT WITH RESPECT TO THE USER NEEDS AND REQUIREMENTS [BS 7925-1]
- TESTING
 - THE PROCESS OF EXERCISING SOFTWARE TO VERIFY THAT IT SATISFIES SPECIFIED REQUIREMENTS AND TO DETECT FAULTS

VERIFICATION, VALIDATION AND TESTING

Validation



Verification

