



Enhancing Quality of Technology-Enhanced
Learning at Jordanian Universities



Quality assurance aspects in USGM:

Self-Assessment and Instructors quality

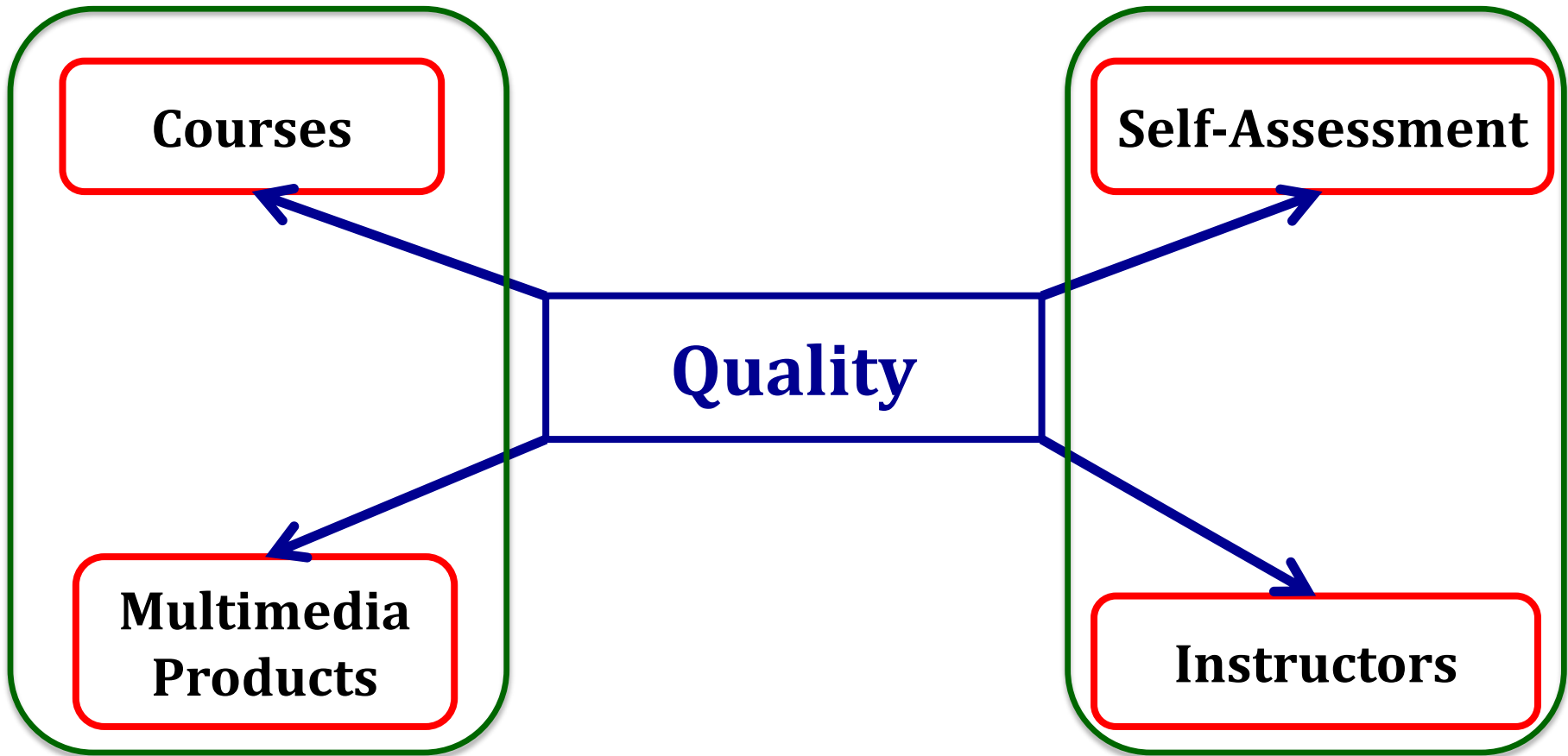
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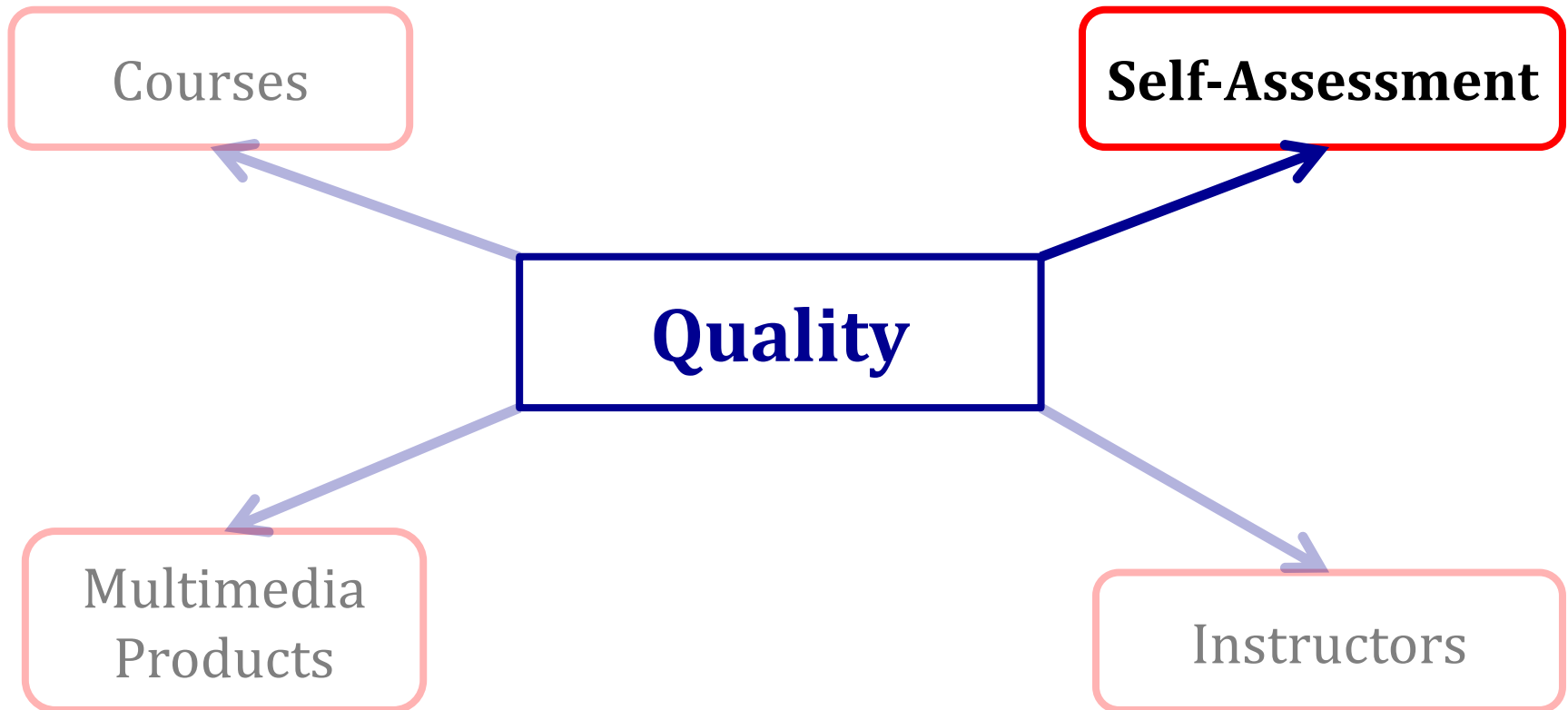
Talk Layout

Talk by M.Fasciani

Talk by M.Martini



Talk Layout

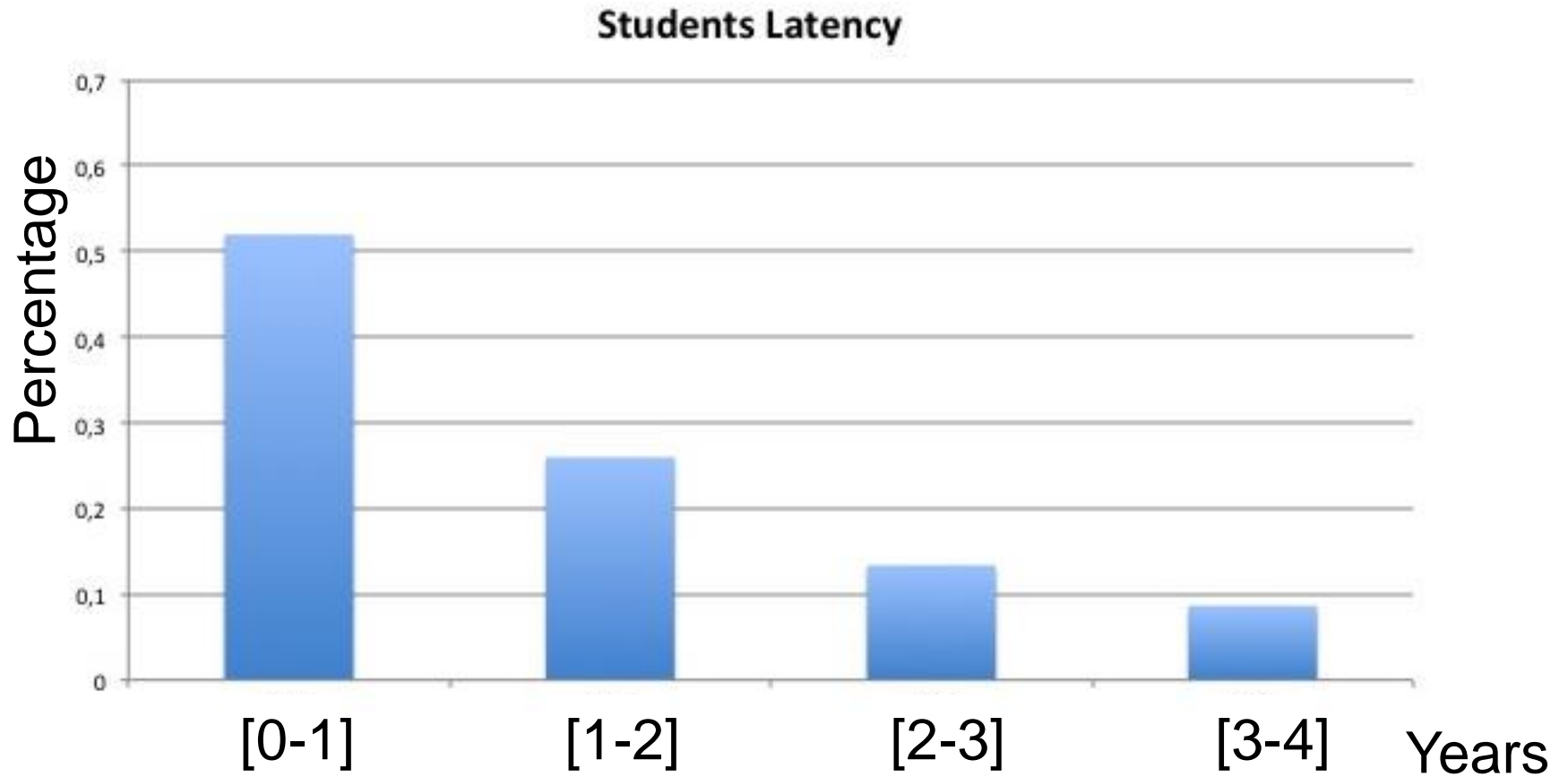


QA for self-assessment

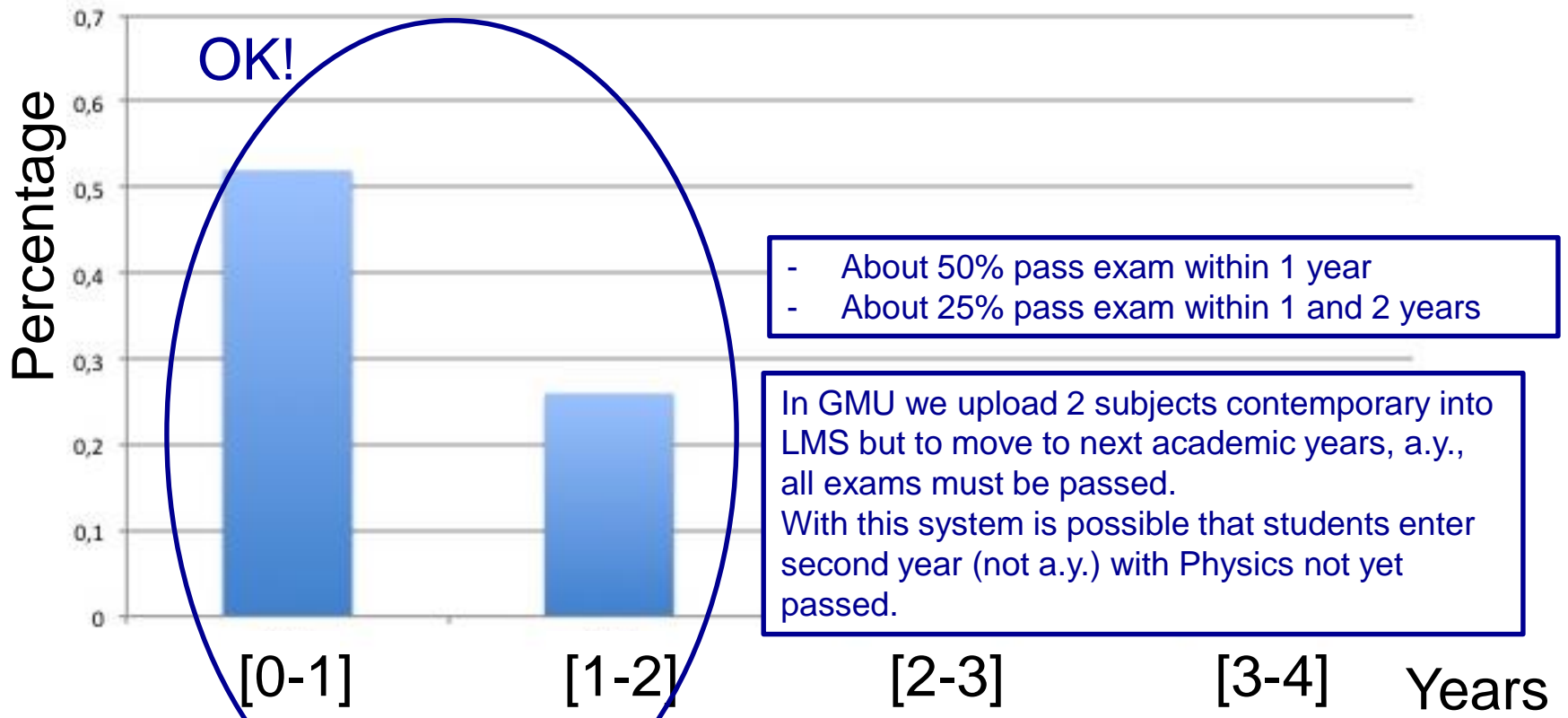
- For its own structure, self-assessment methods are mandatory in distance learning
- In our mind, these activities must be useful to:
 - Increase student quality
 - Simplify learning process
 - Shorten student time into university
 - Monitor didactical aspects not only related to students
 - Last but not least ... these tools must be simple usable by all instructors (young, old, IT skilled, etc.)

Students latency

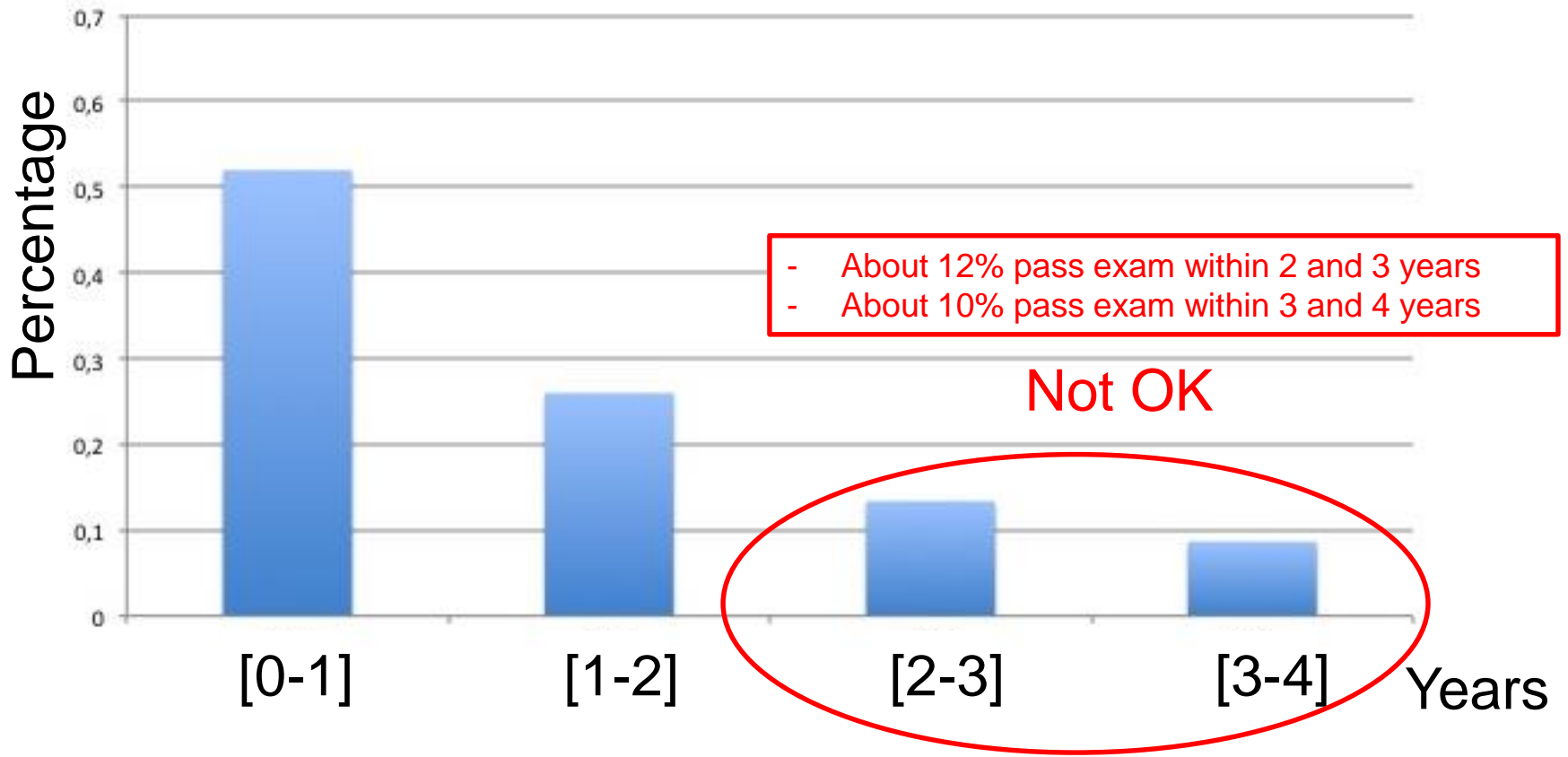
- We define “latency” the time required by each student to pass an exam.
- Count starts when subject is uploaded into student personal LMS (different for each student in GMU)
- Case Study: General Physics. First year subject for Engineering courses (12 CFU/ECTS, 9 QC).



Students Latency



Students Latency



Students latency

- This trend is similar to other engineering courses
- Why this??

Before starting, our students must learn how to study, i.e.:

- Develop a personal study-method
- Organize their work in complete autonomy

This is exactly what students ask requiring a “personalized tutoring”

Students latency

Starting from these assumptions in GMU we realize a technological based self assessment activity with the precise aim to give a personalized tutoring.

In particular:

- Permit self evaluation during study
- Drive students to a better organized work
- Permit self evaluation before final exam

To do this we need a MP with these features:

- Activity with different questions every time
- Possibility to choose arguments
- Self-evaluation by students

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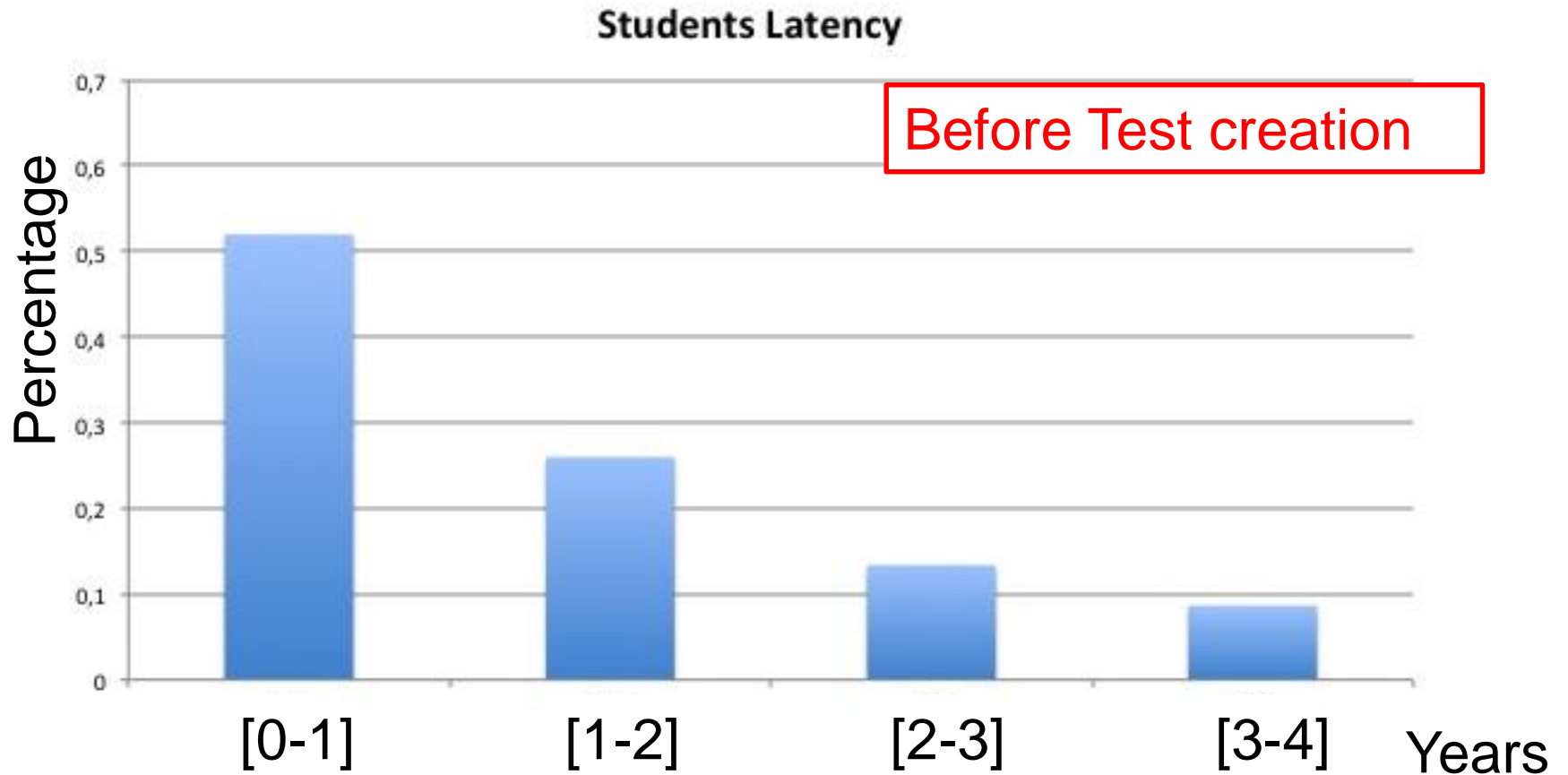
Our proposal in USGM?

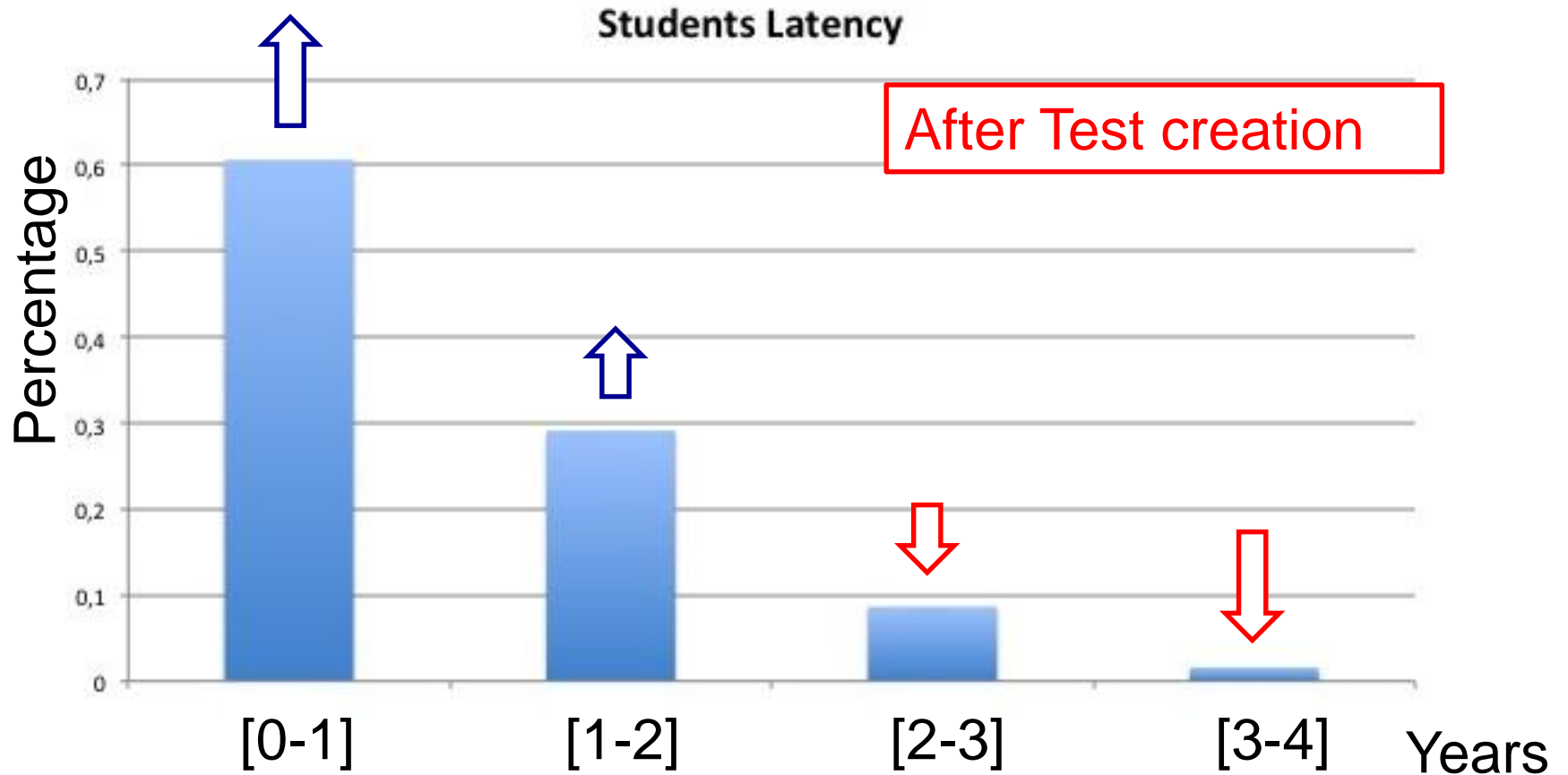
An old, well known and clear: **Multiple Answer Questionnaire ... but technologically evolved!**

As will be clear in next slides, this MP exploits technologies to increase learning quality

Students latency

- To provide “always different test” we prepare an initial database with a large number of questions (e.g. 500 for General Physics)
- When a test is requested, a pseudo-random generator select 15 questions over the entire Data Base
- Each question is identified by an ID that corresponds to the argument
- Student can ask for single argument questionnaire, course part or the entire program
- When completed the test a detailed report is sent to student and also to instructors
- With this trick we increased of 30% student contact with teachers





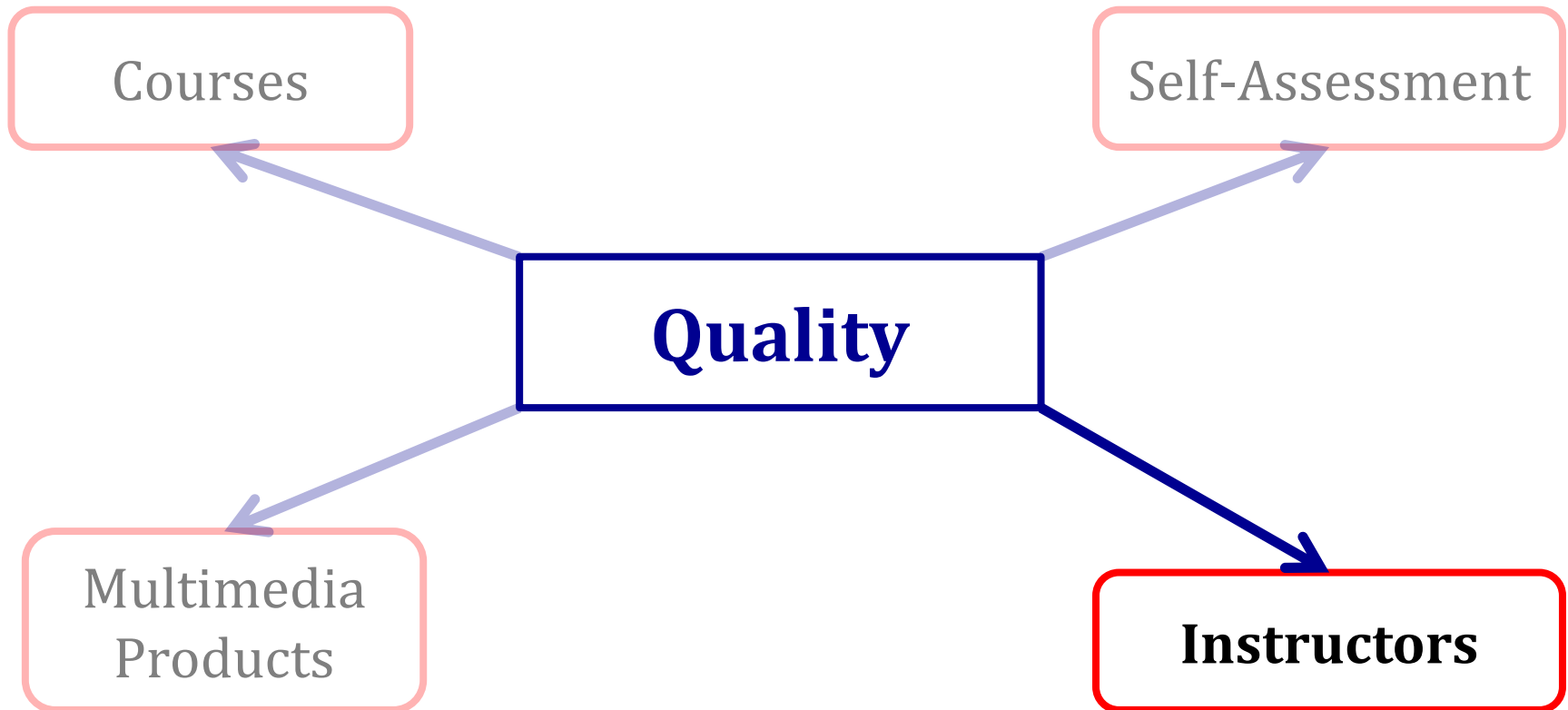
QA for self-assessment

- This tool has been integrated into a dedicated Web-portal
- A DB is used to store the entire collection of completed questionnaire
- A search engine permit to select single test, single student, class or to analyze the entire sample

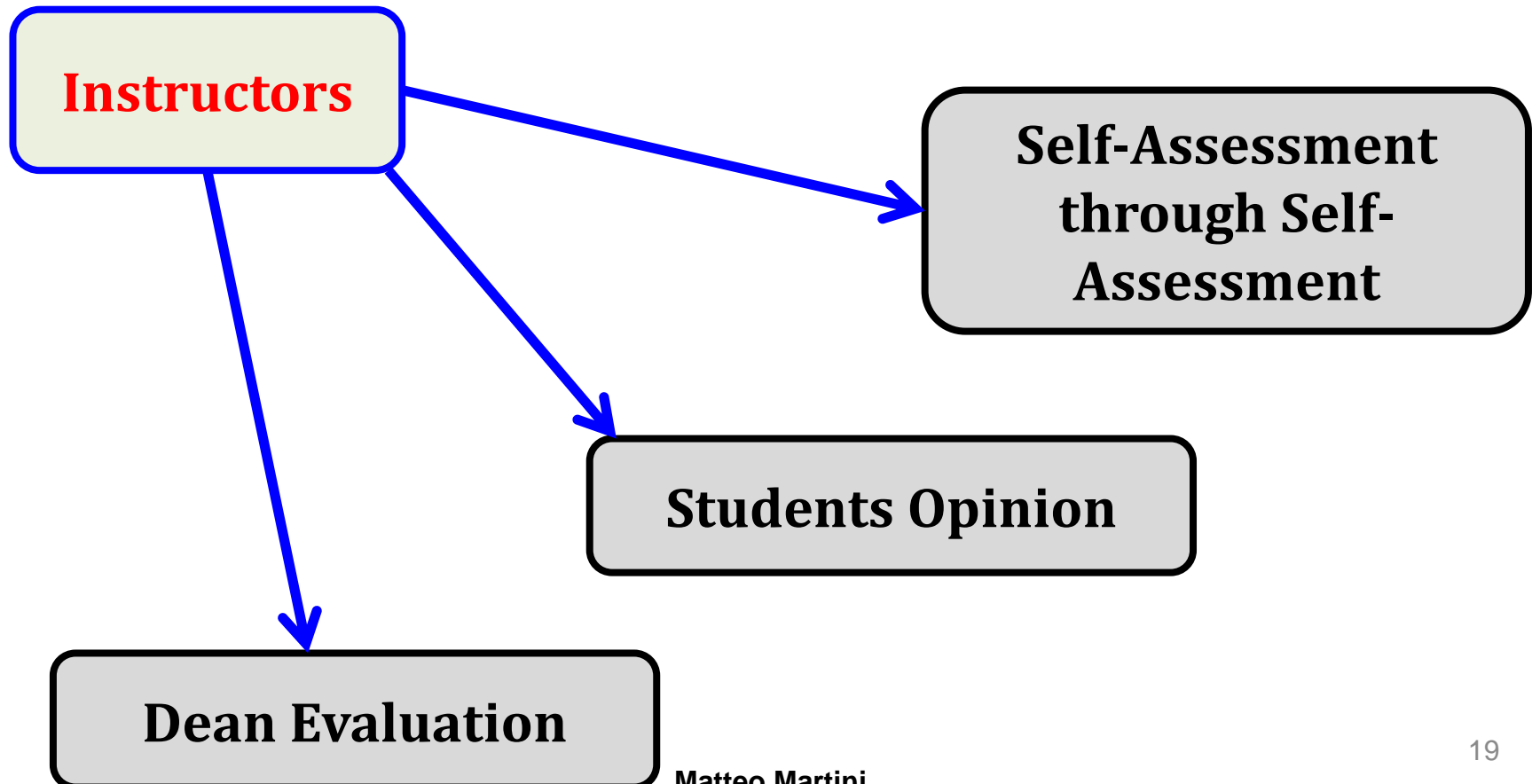
QA for self-assessment

- Analyzing single questionnaire, instructor can contact student and suggest specific reading
- Checking single student we can monitor progress or debunk wrong convictions
- But this tool offers an additional important feature

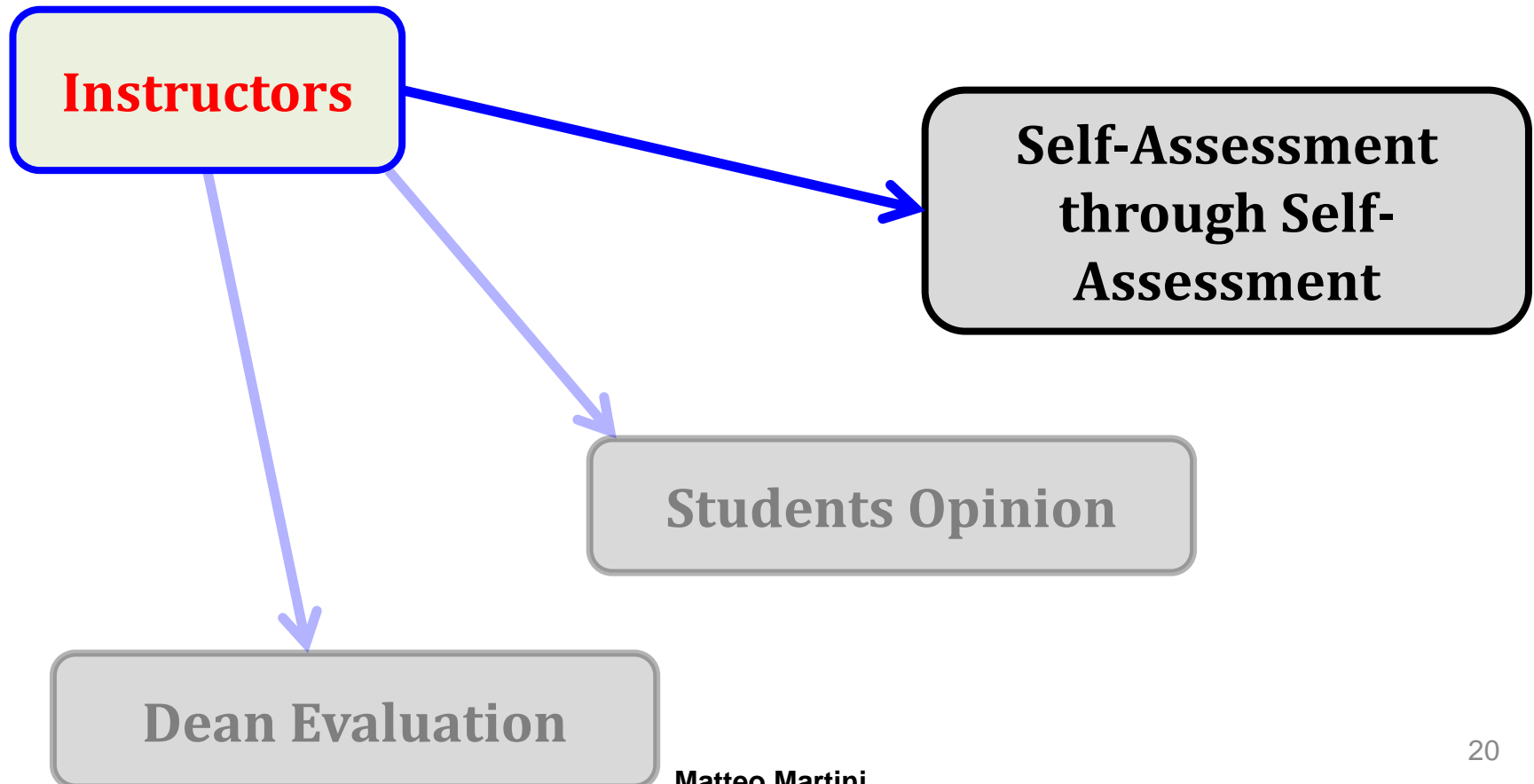
Talk Layout



QA for Instructors



QA for Instructors

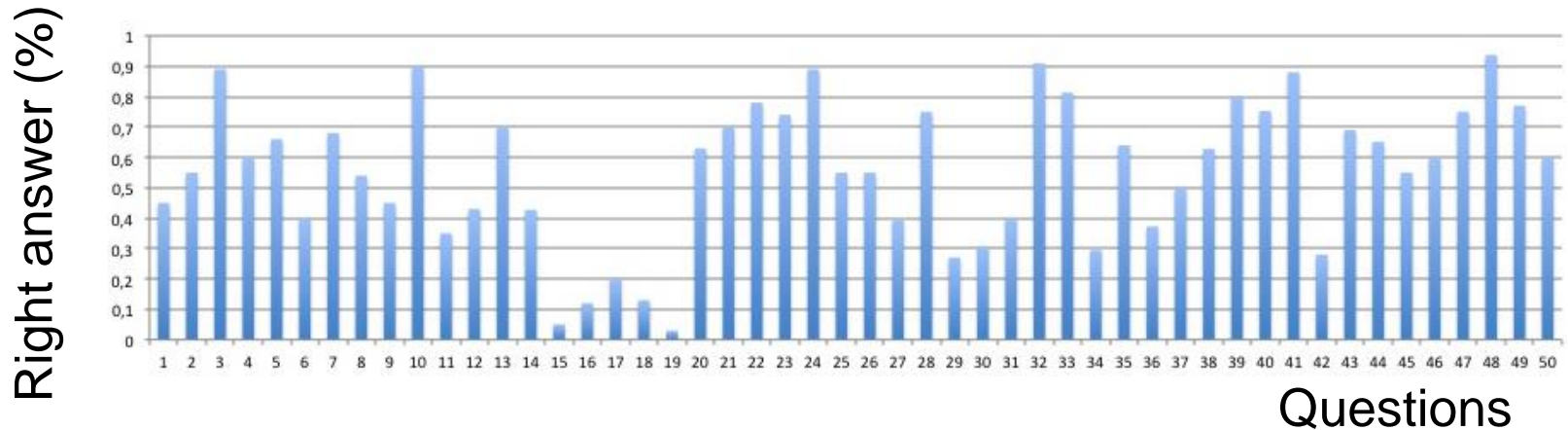


QA for instructors

- Thanks to a dedicated database, we can store the entire set of completed questionnaires
- This offers to instructors the possibility to evaluate to which extent learning materials are unfriendly to the students community
- In other words this MP becomes a quality-meter for didactical material

QA for instructors

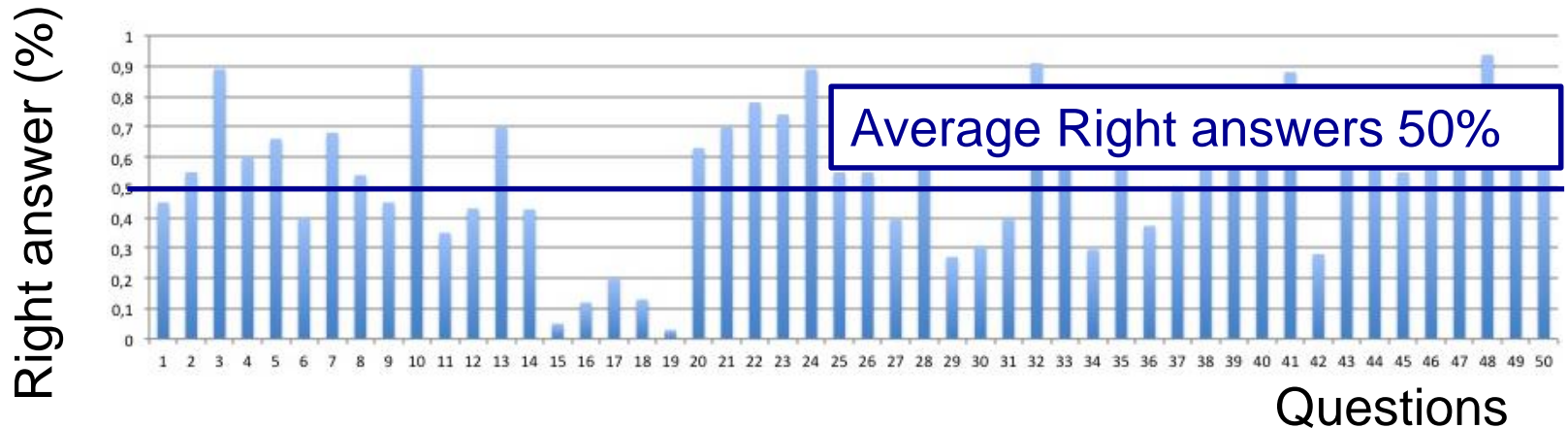
From DB we can plot the fraction of correct answers for each question (data relative to General Physics course):



Sub-sample of 50 questions over 500

QA for instructors

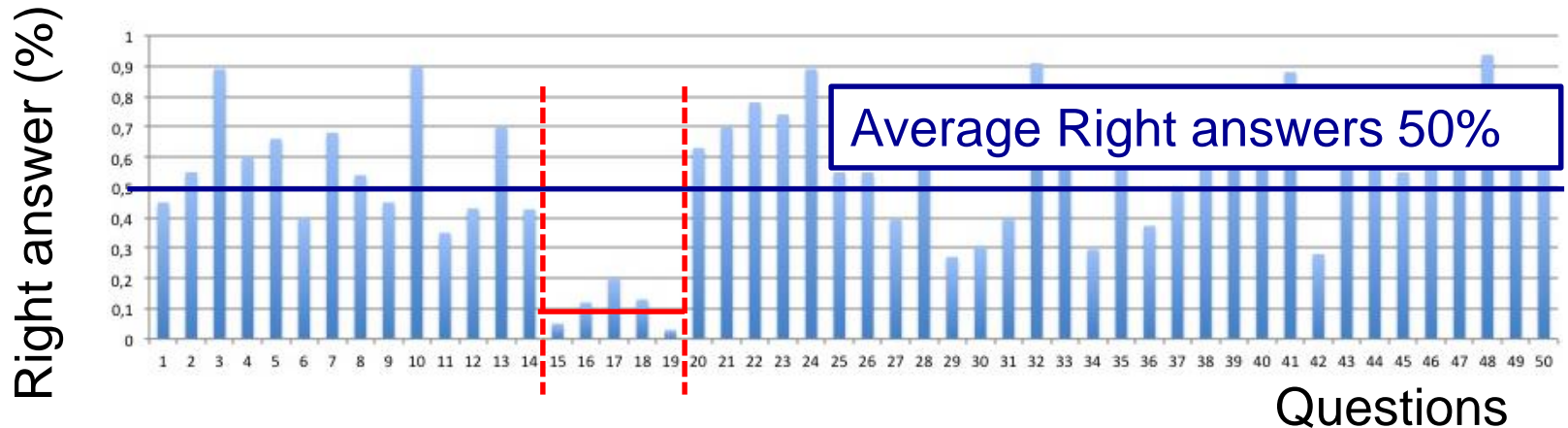
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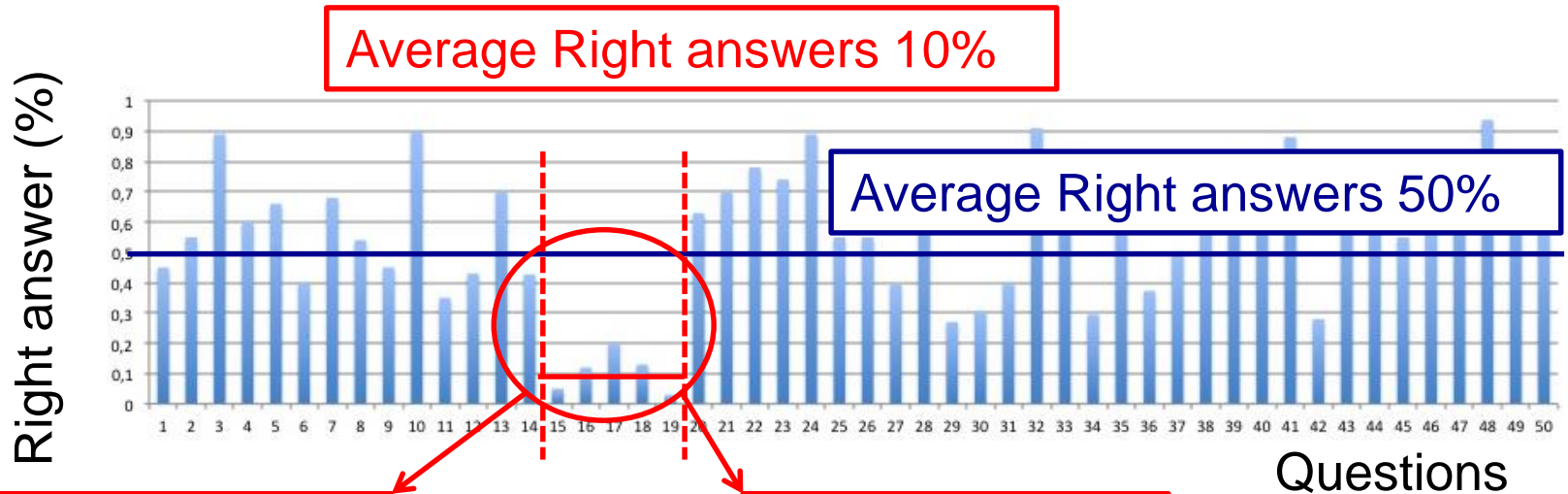
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QA for instructors

From DB we can plot the fraction of correct answers for each question (data relative to General Physics course):



This group is relative to a single arguments

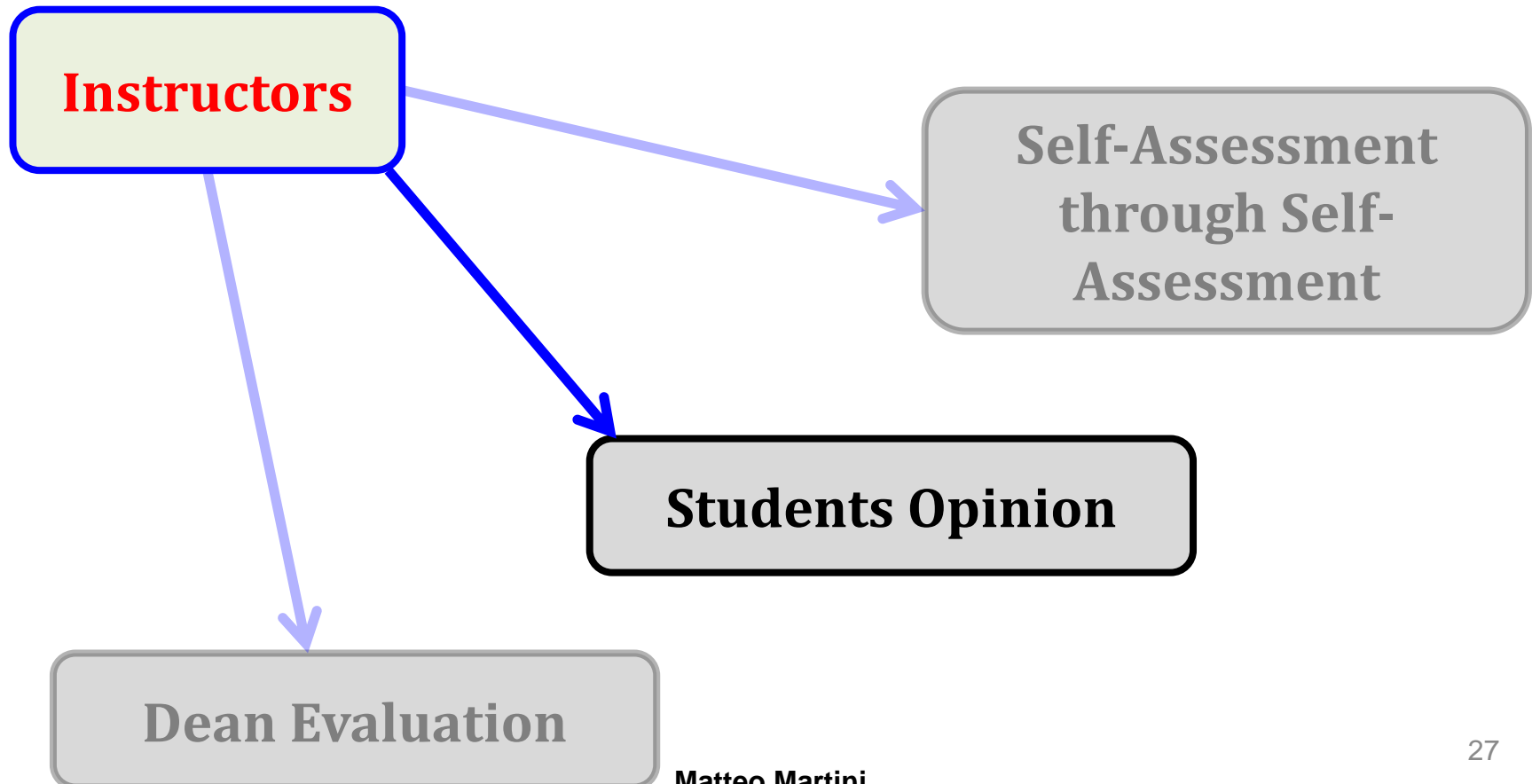
For specialist, 2.5 sigma far from the average

QA for instructors

Solutions?

- In my General Physics case I add additional readings to explain in a different way the arguments
- Add new multimedia products
- Change video lessons
- ...

QA for Instructors



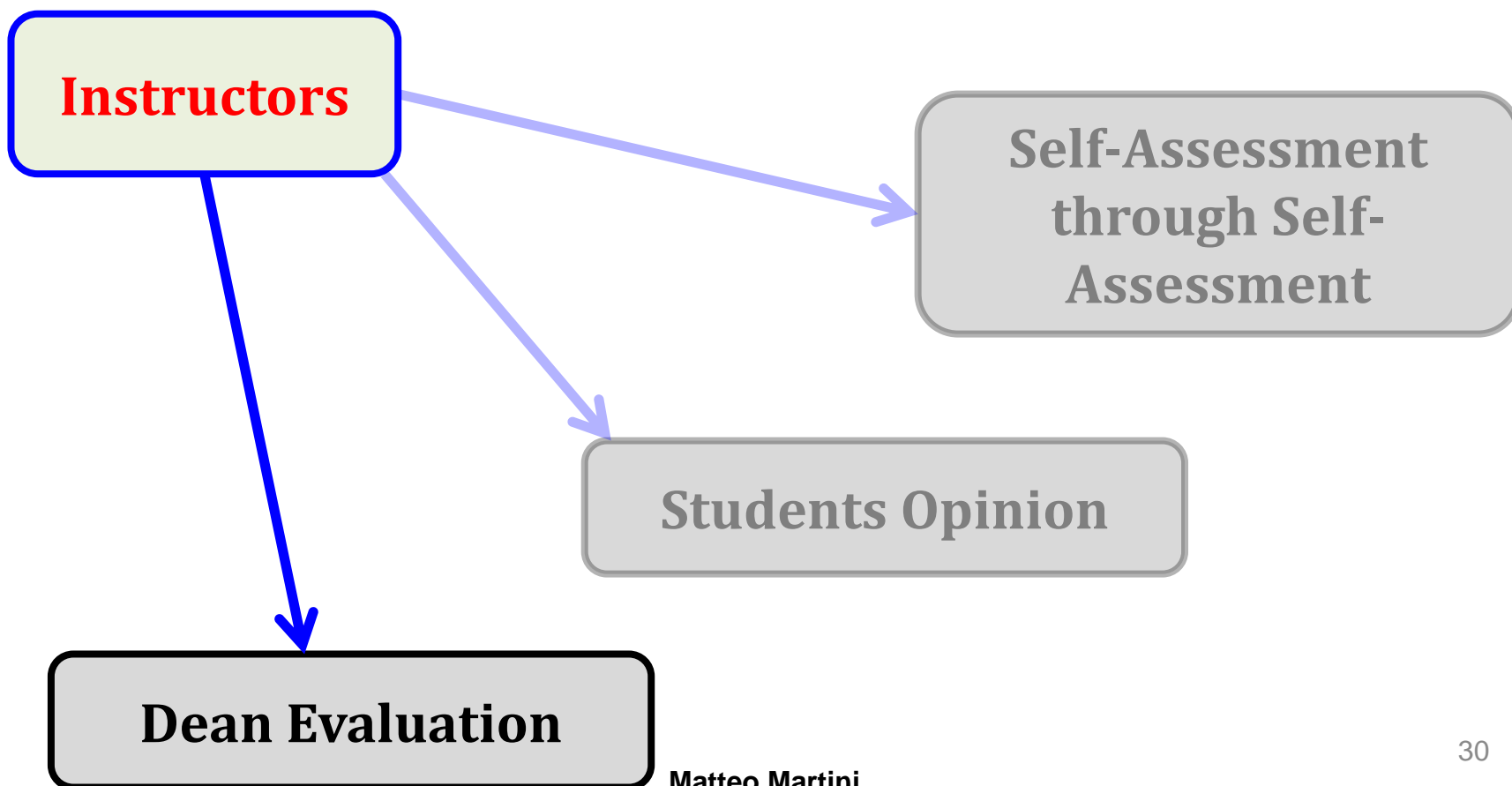
QA for instructors: questionnaire from students

- Before booking his final exam a student must fill a questionnaire regarding course and instructors
- Questions include:
 - Instructors availability
 - Clearness of didactic materials
 - Completeness of didactic materials
 - Satisfaction about synchronous events (webinar, virtual lessons, etc.)

QA for instructors: questionnaire from students

- These evaluations are mandatory for Italian laws
- Average result for instructors can be used to:
 - Reward mechanism
 - Position selections
 - University evaluation from Ministry

QA for Instructors



QA for instructors: dean evaluation

- At the end of each academic year the dean fill a personal-form for each instructor
- The form is divided into 3 main area:
 - Didactical aspects
 - Behavioral aspects
 - Final evaluation

QA for instructors: dean evaluation

Didactical aspects:

- Teaching method and course organization
- Expertise
- Teaching technologies

For each aspects a vote between 1 and 4 is assigned (from not sufficient to optimum)

QA for instructors: dean evaluation

Behavioral aspects:

- Professionalism (e.g. positive attitude to work duties, policy, etc.)
- Reliability (absences, punctuality, etc.)
- Flexibility (new courses, enterprising spirit, etc.)

For each aspects a vote between 1 and 4 is assigned (from not sufficient to optimum)

QA for instructors: dean evaluation


Final evaluation can be:

- Not sufficient
- Sufficient
- Good
- Optimum

Instructors with a final vote “not sufficient” are called for a colloquium with the dean.

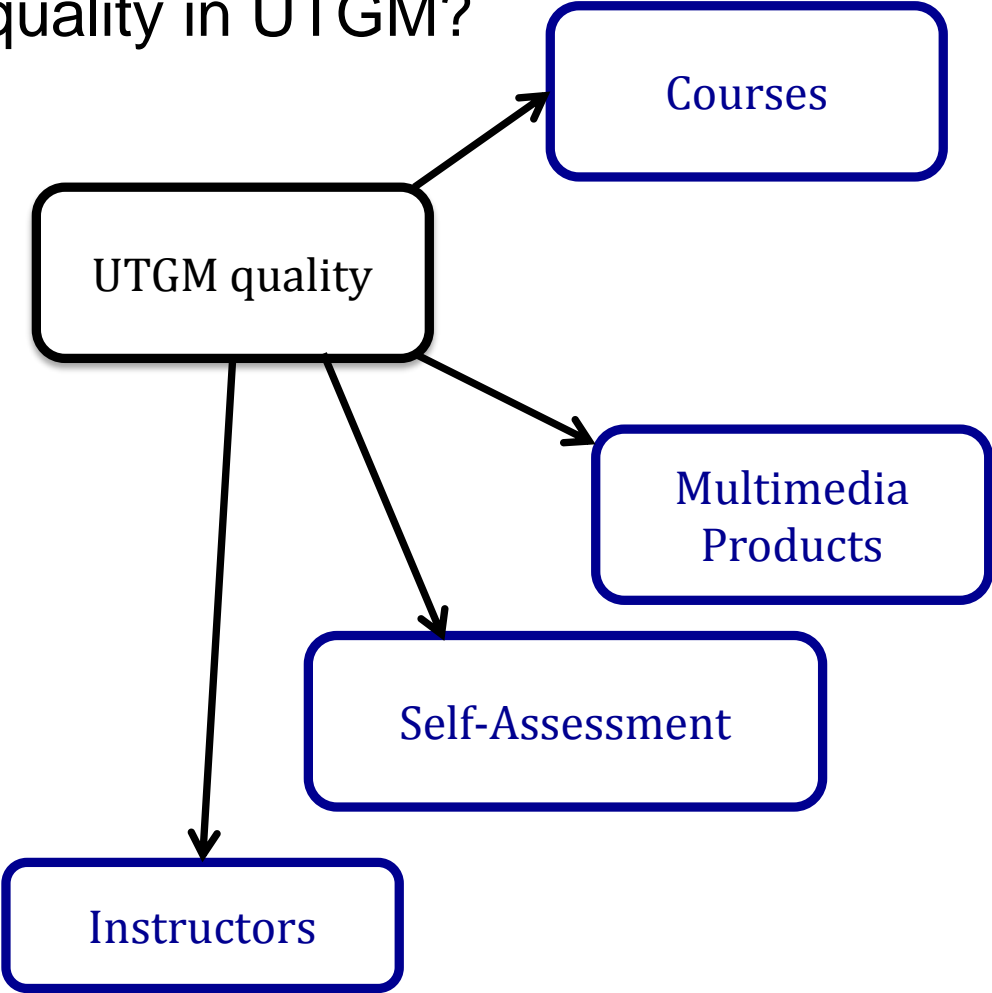
The aim of this colloquium is to understand problems, ability to adapt, requests, etc.

Summary:
How is
implemented
quality in UTGM?

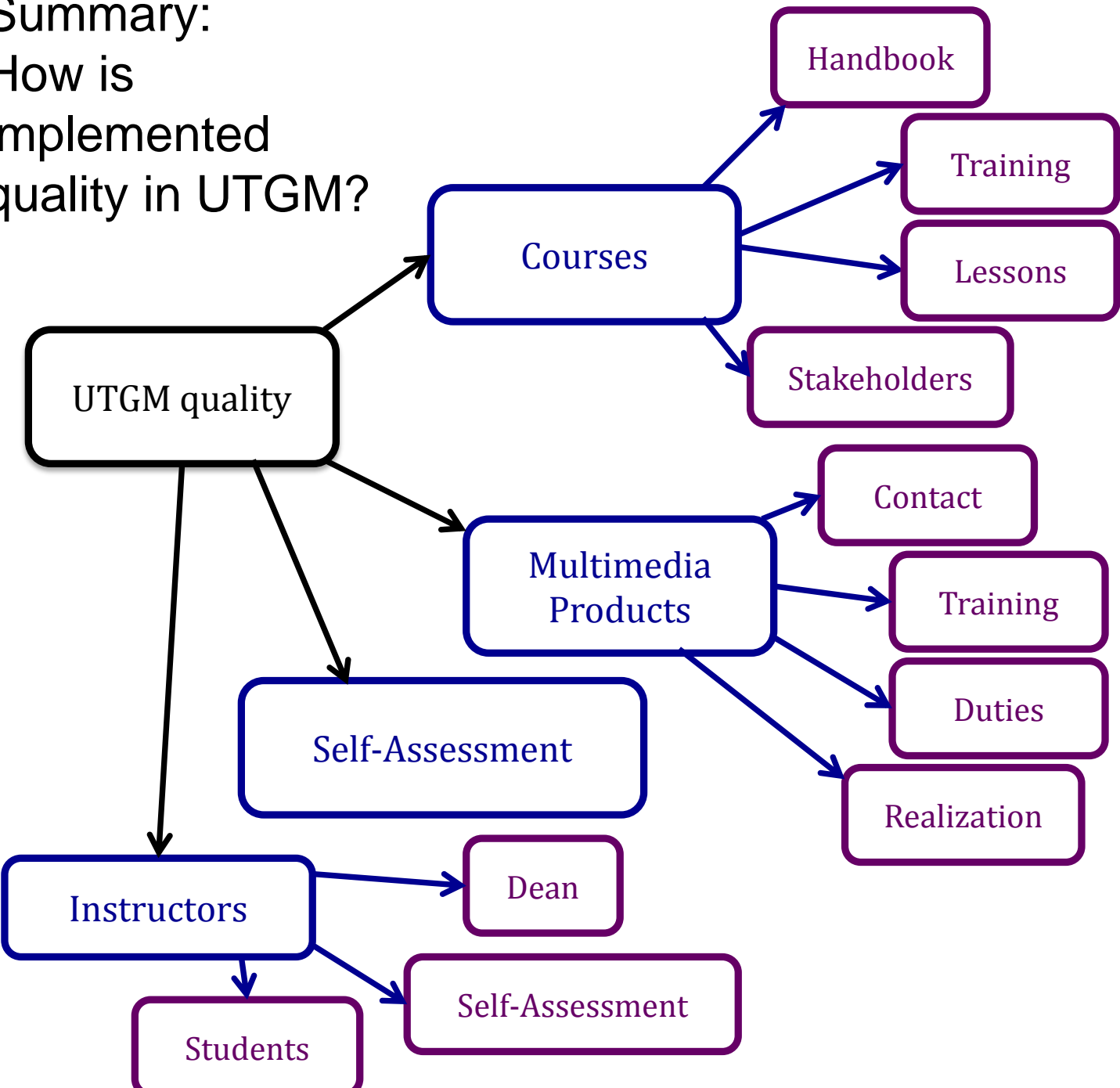


UTGM quality

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