Slovak University of Technology in Bratislava

Quality Policy of STUBA for teaching, learning and assesment of QAS

Jozef Gašparík-Sylvia Szalayová

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Vision and mission of STUBA

- The Slovak University of Technology in Bratislava (STUBA) strives to be an internationally recognized and important, research-oriented technical university
- Education system of STUBA is based on scientific research, as well as on artistic, engineering and other creative activities.
- Faculties, departments, institutes and experts of STUBA“
  - cooperate directly with industrial companies and social organizations,
  - actively taking part in international cooperation.

Vision of STUBA

- Providing a high quality, internationally comparable education to a broad spectrum of students from the young generation in promising fields:
  - based on independent and critical thinking, entrepreneurship and creativity,
  - with a view to practical application and success in life,
  - taking into account the human aspects of education and technological progress.
- The university aims: to contribute to the economic and social development of the region.

Mission of STUBA

- As a research-oriented technical university, STUBA's mission is:
  - to achieve through scientific research, apply and disseminate new knowledge through engineering and other creative work,
  - educate and enlighten the young generation in the spirit of the principles of humanism and benevolence.
- STUBA:
  - develops harmony, knowledge, wisdom, goodness and creativity in a person
  - contributes to the development of education, science, culture and health for the good of society as a whole
  - contributes to the development of a knowledge-based society.

QUALITY POLICY in STUBA

1. Creating work condition by top management of university, which will lead to university prosperity and significant position in Europe and world.
2. Assurance compatibility of education processes with top universities of Europe and world
3. Active involvement of all internal employees of university (pedagogues, researches) ant external partners into increasing the quality of pedagogical process
4. Continual improvement of university infrastructure with aim to create the best precondition of employee professional progress at al management levels.
5. Increasing of moral and professional potential of pedagogues and other employees of university with aim to deal with world knowledge to our customers in framework of accredited university field of studies and study programs.

QUALITY POLICY in STUBA

6. Careful planning and actualization of study programs and content of study teaching subjects in harmony with new world knowledge and trends in area of science, technology and education.
7. Continual evaluation of feed back in pedagogical process with aim to improvement of university connection with practice and fulfillment the requirements of practice.
8. Effective communication and teamwork of university employees with aim to reach extra effects in area of education and research.
9. Motivation of university employees by top management of SUT and differential reward system according to reached results in education, research and other areas.
10. Increasing of university culture, economical prosperity of SUT and social approach of university top management into employees and students.

EU Quality Education Policy at STUBA

harmonized with Bologna declaration

according to approved document:

Standards and Guidelines for Quality Assurance in the European Higher Education Area:

In English:

Http://www.eqar.eu/fileadmin/documents/e4/050221_ENQA_report.pdf

Translation to other languages:

http://www.enqa.eu/pubs_esg.lasso

Summary list of European standards for quality assurance within higher education institutions

Part 1: European standards and guidelines for internal quality assurance within higher education institutions

Part 2: European standards for the external quality assurance of higher education

Part 3: European standards for external quality assurance agencies

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Part 1:

1.1 Policy and procedures for quality assurance: approved by rector of STUBA

1.2 Approval, monitoring and periodic review of programmes and awards: accreditation process each 5 years

1.3 Assessment of students: each semester

1.4 Quality assurance of teaching staff: accreditation process each 5 years

1.5 Learning resources and student support: Literature and infrastructure

1.6 Information systems: Academic Information System (AIS) for teachers and students

1.7 Public information: www.stuba.sk

Legislation in Slovakia

Statute N. 131/2002 for high school

(Criteria for internal Quality Assurance System (QAS) at universities in Slovakia)

- created by Accreditation commission of Slovak Government
- approved by Ministry of education, science, research and sport in Slovak republic
- Compliance to European Standards and guidelines for internal Quality Assurance within higher education institutions

Internal Quaôity Assurance System (QAS) at Slovakian universities

2 basic criteria:

1. Policy of university concerning the Quality Assurance (QA) of university educaction

1. Procedures of QA in education at university

Policy of QAS in education at university

N.	CRITERION	INDICATORS
01	Main tools to achieve goals of internal QAS	Formulation of main goals of IQAS and definition of tools to achieve it. Aims and tools are transparent, realistic, publicly available, stimulating development
02	Relationship education-research at university	Submitted results of education, research, development and creative activities, existence of procedure to transfer research results into education process
03	Organization of university internal QAS	Existence of internal QMS, ties, transfer of information, system of effectiveness evaluation of internal QAS
04	Competences delegation in internal QAS	Clear delegation of competences and cognizances of all university parts (faculties, institutes) involved into QAS
05	Involving of students into internal QAS	Existence of procedure concerning the students involvement into activities of QAS of university education
06	Methods of development and monitoring principles of university in QA processes	Existence of procedures to implement, using, monitoring and revision of university principles of QA processes

Procedures of QA in education at university

N.	CRITERION	INDICATORS
01	Creation, approval, monitoring and regular evaluation of Study Programmes (SP)	1. Existence of effective system for this criterion 2. Formal outputs and schedule of periodical evaluation of SP from the point of aims and expecting outputs of education 3. University allows participation of students, representative of employees and other interested parties to this process
02	Criteria and rules of student evaluation	1. Transparent and public available criteria and rules of student evaluation which support achievement of education aims and expecting education results 2. Existing of effective, clear formulated and consistent policy for selection of exam and evaluating commission members with clear definition of their competences 3. University publishes and keeps rules and conditions of student transfer into higher study level and conferment of academic title 4. University periodically evaluates percentage of university study, results of students, involving students into research activities, mobility of students etc.

Procedures of QA in education at university

N.	CRITERION	INDICATORS
03	Quality assurance of university teachers	1. University has developed clear rules and requirements for QA of university teachers, career progression of teacher and for evaluation of their quality level and competences 2. Using of other evaluation of teachers (by students and pedagogical employees) 3. University offers to teachers opportunity to of continuing development of their pedagogical abilities.
04	Assurance of material, technical and information resources to support education process according to needs of SP	1. University continually evaluate assurance of these resources to support of student education in fiuelds of study (libraries, laboratories, PC rooms, information systems, softwares etc.) 2. University cooperation with axpert subjects according to needs of SP (industry company, private sector, software company etc)

POLICY OF EDUCATION QUALITY ASSURANCE

LONG-TERM STRATEGY OF STUBA 2012-2020

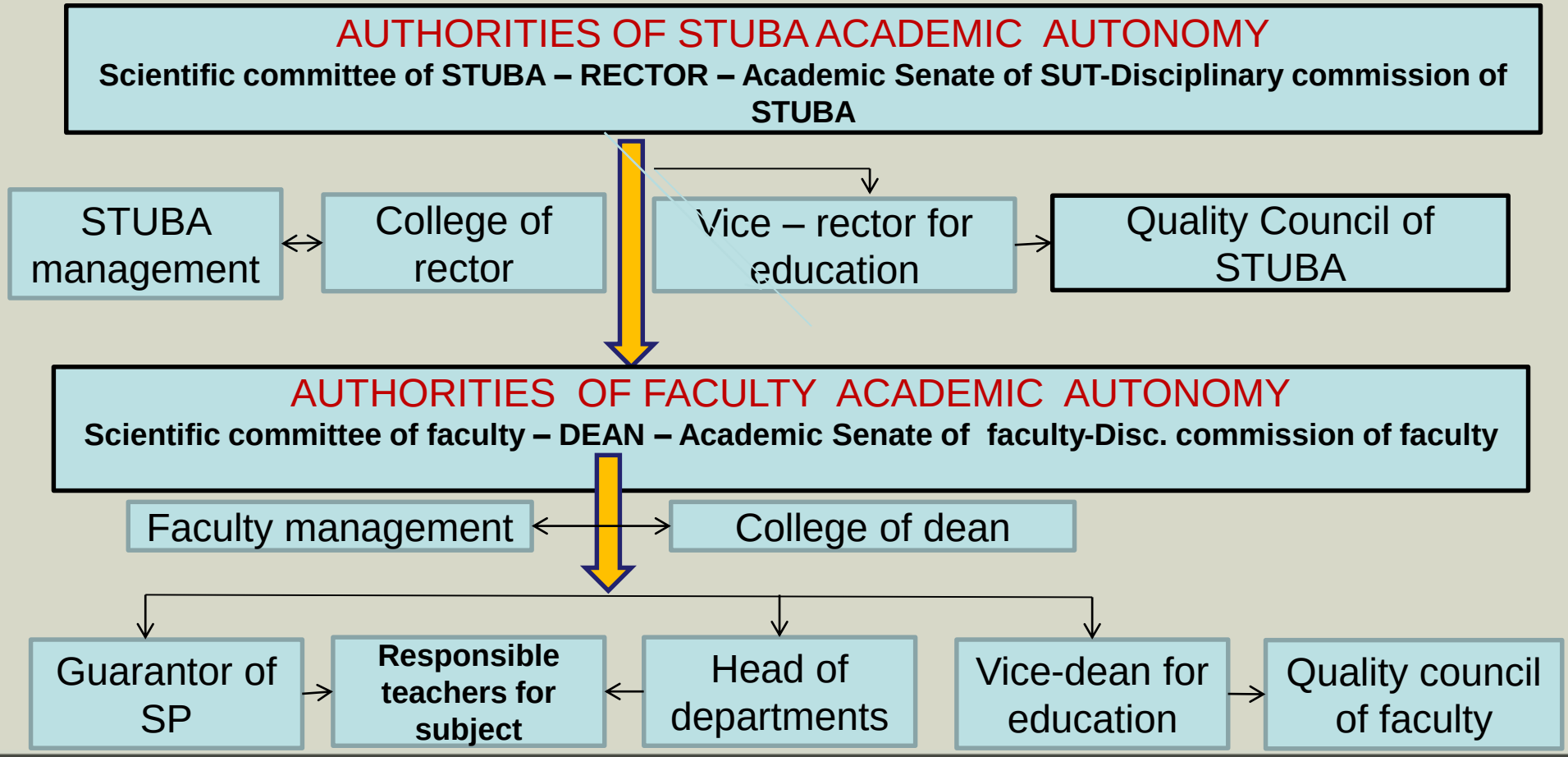
QUALITY POLICY OF STUBA

AIMS of INTERNAL QAS

POLICY OF EDUCATION QUALITY ASSURANCE

- Basic tool to achieve aims of internal QAS
- Compliance of Study Programmes with Quality Policy and Quality Aims
- Yearly are analysed and evaluated the quality level of education at faculties and STUBA (evaluating reports):
  - College of dean
  - Scientific council

Organizational structure for internal Quality Assurance System (QAS) at the Slovak University of Technology (STUBA) in Bratislava



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Delegation of competences in internal QAS

- **RECTOR:**
  - Main responsibility for quality of education in STUBA
  - Coordination of education activity in all STUBA
  - Coorditation of work of external evaluators
- **VICE-RECTOR FOR EDUCATION:**
  - Conception of QA in education process in all STUBA
  - Definition of Quality criteria of education in all STUBA
  - Leader of Quality council in STUBA – meeting with vice-deans of faculties
  - Quality Policy and Aims in STUBA
  - Evaluation of results of QAS,
  - Creation of yearly report concerning the Quality of education in STUBA
- **DEAN OF FACULTY:**
  - Main responsibility for quality of education in faculty
  - Coordination of education activity in faculty

Delegation of competences in internal QAS

- **VICE-DEAN FOR EDUCATION :**
  - Methodical control of SP guarantors and head of departments
  - Coordination of education activities in all faculty
  - Coordination of SP creation and approval
- **STUDY BOARD:**
  - Responsibility for quality of PhD study programmes
- **GUARANTOR of SP:**
  - Responsibility for Quality of education in study program
- **HEAD OF DEPARTMENT:**
  - Responsibility for Quality of education at department or institute
- **LECTURER:**
  - Responsibility for Quality of education in given study subject

PRINCIPLES OF QAS IN EDUCATION IN STUBA

- Institutional responsibility for offer and provision of quality education
- Always is opportunity to increase quality of education
- Each stakeholder can give impulse to education quality improvement
- Each useful initiative is evaluating and involving into QAS
- Creating of conditions for active participants students and employees to assure quality of education
- Continuing improvement of education processes
- Decisions of management at the bases of facts, arguments and feedback
- The core of quality improvement are each beneficial relationships of all stakeholders at university

MAIN TOOLS TO ACHIEVE AIMS OF QAS

- Involving of students of all degree to research activities
- Revision of all study programmes with aim to increase the effectiveness according to graduate profile, practice requirements and possibility of individual profile
- Modernization of education with respect the newest world knowledge in study and didactic
- Creation of consultancy services with using of student activity
- Increasing marketing activities for acceptance of foreign students
- Social approach for socially weaker students
- Increasing the number of SP in world languages
- Increasing the mobility of students and teachers in world universities
- Continually monitoring of education process quality by students and stakeholders

Methods of development and monitoring of QAS at STUBA

- **Principles of QAS are analysed and approval in university and faculty committees**
  - **Management of STUBA, College of rector, Scientific council of STUBA**
  - **Management of faculty, College of faculty, Scientific council of faculty Academic Senate of faculty**
- **Form of principles:**
  - **Internal prescription of STUBA**
  - **Internal organizational and management standards approval by rector , vice-rector, dean etc.**

Methods of development and monitoring of QAS at STUBA

- **Monitoring of QA principles:**
  - Observations by guarantor, head of departments, vice-dean etc
  - Evaluation of education quality by students
  - Application of graduates in practice
  - Feedback from graduates about their ability to apply in market
  - External evaluation by Accredition commission, Ministry of education, civic association ARRA etc.

INFUENCE INTO PROCESS OF CONTINUAL IMPROVEMENT OF QAS

Creation, approval, monitoring and evaluation of study programmes in STUBA

Identification and analysis of stakeholders requirements for creation new SP or actualization existing SP

Nomination of study program guarantors (Prof) for approved study programmes by dean of faculty

Definition of SP characteristics, profile of graduates and study plan by guarantor of SP

Creation, approval, monitoring and evaluation of study programmes in STUBA

Approval of study programmes by Scienfic council of faculty and Academic senate of faculty (participation of students)

Rector on the base of dean requirement submits request for accreditation of SP

Implementation of SP after its approval by Minister of education on the base of successful accreditation process

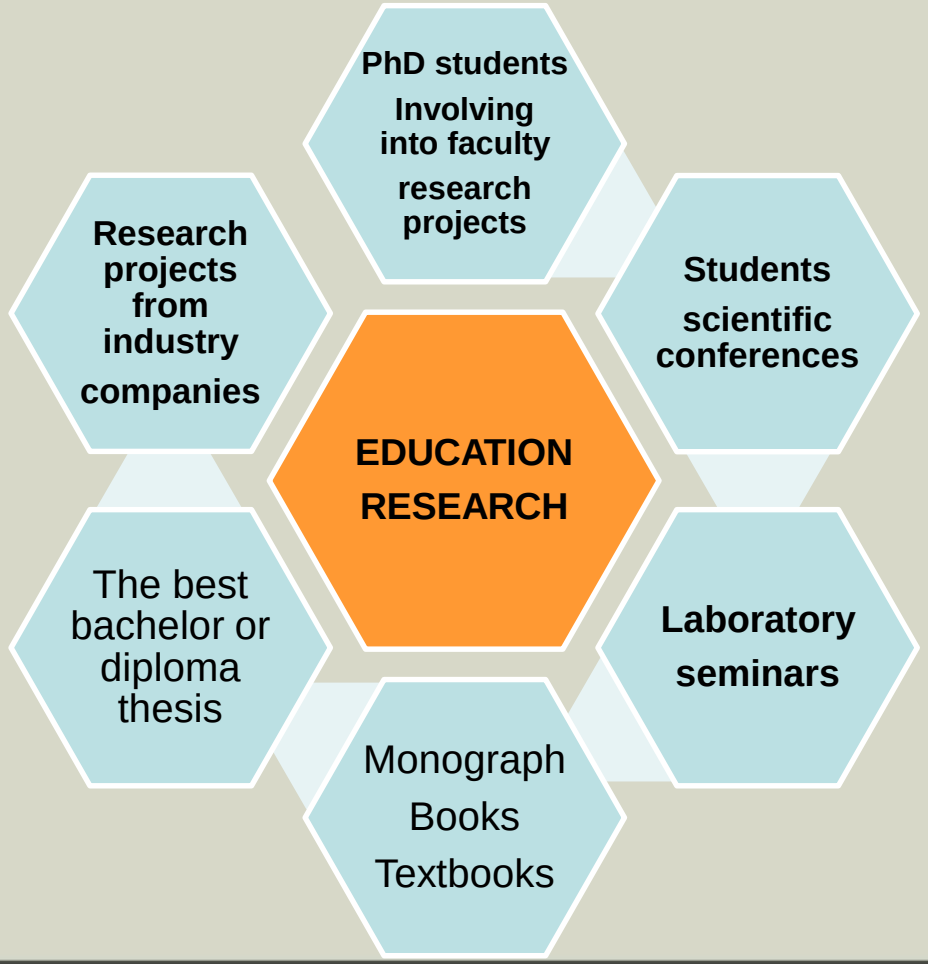
MONITORING OF STUDY PROGRAMMES

- Interest about study programmes, number of students in SP, loss of students after 1st semester of Bc. study and at the end of academic year
- Percentage of study (once a year)
- Evaluation of subjects and teachers by students (twice a year)
- Evaluation of observations (twice a year)
- Final evaluation of students in subjects (twice a year)
- Evaluation of state exams and Bc. And Master graduates (once a year)
- Evaluation of weighted study mean (once a year)
- Reaction of practice to quality of faculty graduates
- Publication activity of PhD. students (once a year)
- Content of subject, actualization for practice, importance of subject for graduate profile

PERIODICAL EVALUATION OF STUDY PROGRAMMES

- **Min. once a year guarantor of SP evaluate data from monitoring of SP and proposes corrective actions**
- **On the base of SP evaluation can authorities of faculty decided about implementation or innovation of SP or its cancelling.**

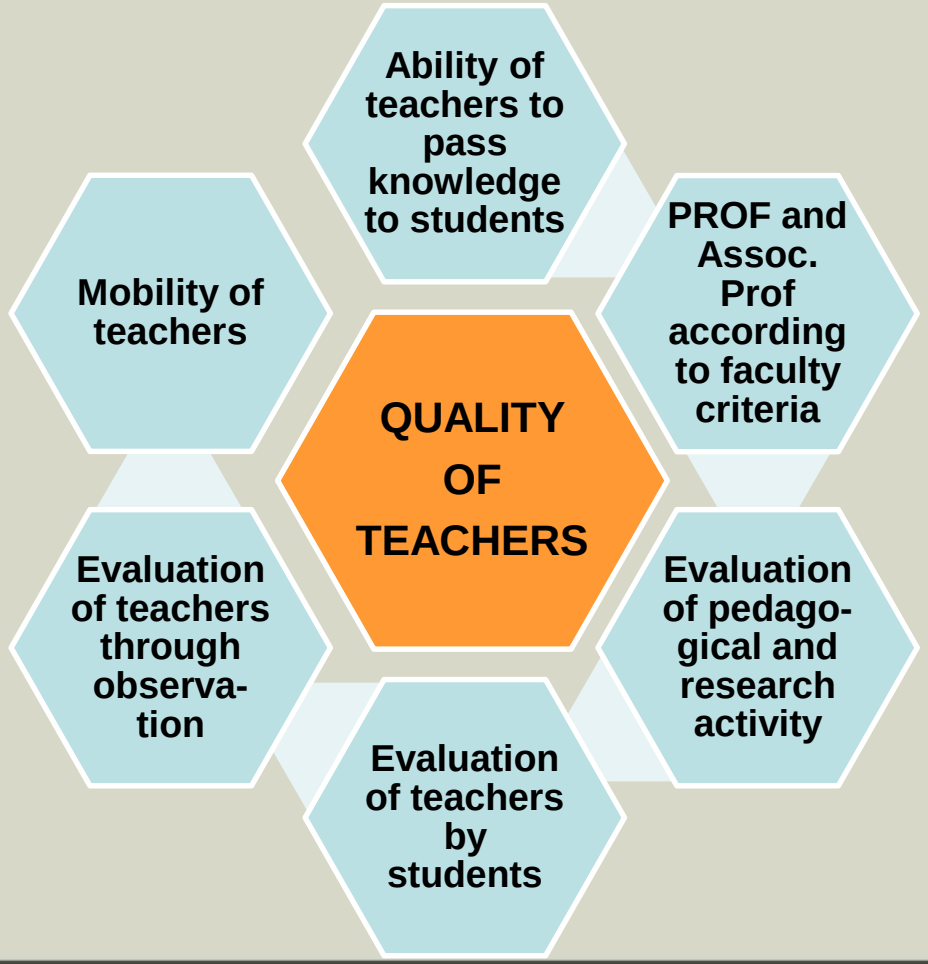
Relationship education-research at STUBA



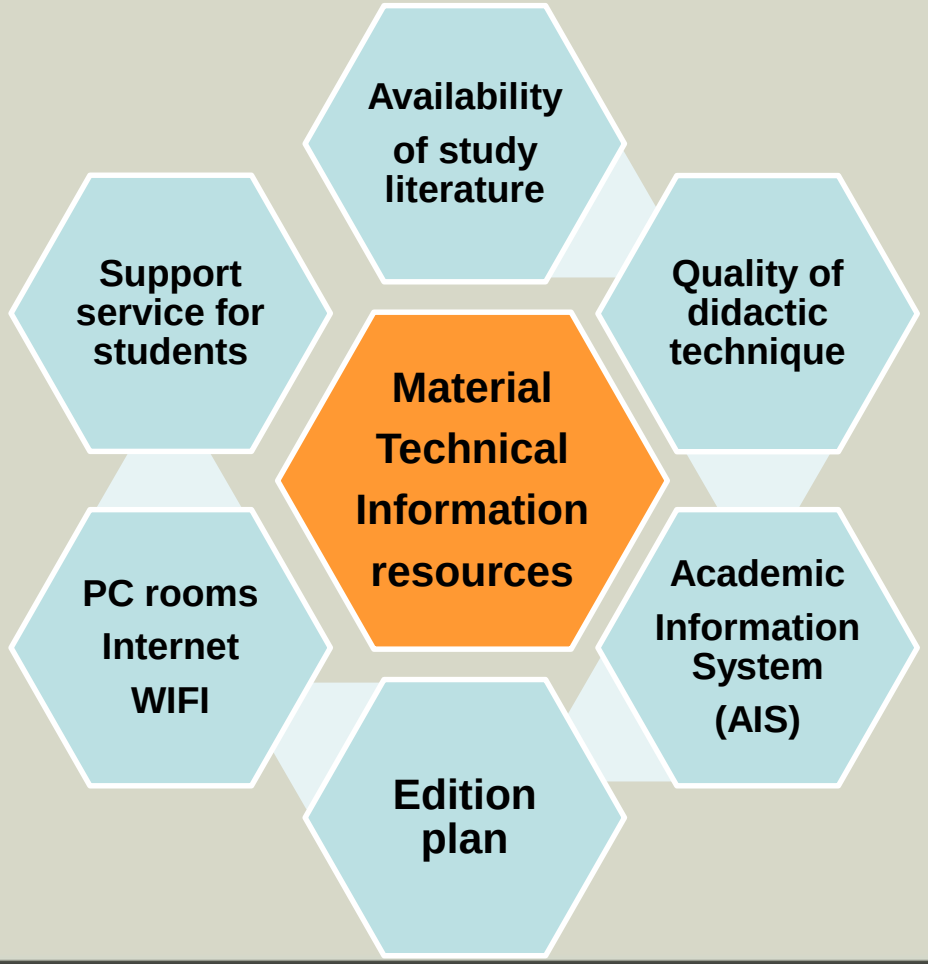
STUDENTS INVOLVING INTO INTERNAL QAS

- Anonymous Quality evaluation of education process and teachers
- Expression of ideas through Black Box and Facebook (electronic through faculty or university WEB site)
- Addressing of complaints concerning the education process to vice-dean, guarantor of SP, vice-dean or dean
- Involving of students into survey organized by external or international organization
- Formal or un-formal meetings of students with guarantor of SP, dean, vice-dean or rector
- Participation of students in Academic Senate of STUBA and faculties, college of dean etc.
- Participation of students during the process of internal procedure creation and approval
- Support of students through student coaching

Quality Assurance of university teachers



Material, technical and information resources



AIS at STUBA

www.stuba.sk

AIS-Academic Information System

- Info about possibilities of study at STUBA
- Profiles of graduates of SP
- Study plans of SP
- Information lists of all subjects
- Yearly reports of STUBA and faculties
- Statistic and analysis (students, graduates)
- Other information about university (culture, sport, relax activities

STUBA infrastructure
Library and Information Centre

STUBA infrastructure
Information Technologies Centre

STUBA infrastructure

Sport Facilities

Slovak Journal of Civil Engineering

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Areas of the educational process QA

- Entrance students
- Student´s learning
- Student´s progression in their studies
- Student´s opinionon the educational process
- Graduates´placement
- Employed graduates´and employers´opinion on the graduates´results

Entrance students (STUBA)

Attractiveness of Study Programmes (SP) (yearly monitoring):

- Number of students enrolled in the first course year
- Possesion of students admission requirements
- Enrolled students geographical and secondary school of provenance
- 1st course year 2018: 50% of students from grammar school, 50 % from vocational sec. school, 33% of women

Entrance students:
Faculty of Civil Engineering STUBA Bratislava
Number of students in Bc. degree

Class	Year	Year	Year	Year	Year
Bc.	2013/14	2014/15	2015/16	2016/17	2017/18
1.	650	626	501	451	430
2.	649	516	453	325	314
3.	688	705	590	564	439
4.	360	353	347	318	250
Total	2347	2200	1891	1657	1433

Entrance students:
Faculty of Civil Engineering STUBA Bratislava

Decrease of number of students after 1st year of study (Bc. Degree)

Academic year	Number of students (1st course)	Decrease of students after 1st year	Decrease of students in % after 1 year
2011/12	709	200	28
2012/13	747	164	22
2013/14	650	201	31
2014/15	626	212	34
2015/16	514	208	40
2016/17	462	182	39

Entrance students:
Faculty of Civil Engineering STUBA Bratislava
Number of students in Master (Ing) degree

Class	Year	Year	Year	Year	Year
Master „Ing“	2013/14	2014/15	2015/16	2016/17	2017/18
1.	543	480	498	408	351
2.	609	588	522	526	467
Total	1152	1068	1020	934	818

Entrance students:
Faculty of Civil Engineering STUBA Bratislava

Decrease of number of students after 1st year of study (Master degree)

Academic year	Number of students (1st course)	Decrease of students after 1st year	Decrease of students in % after 1 year
2011/12	537	21	8
2012/13	576	29	5
2013/14	545	27	5
2014/15	480	24	5
2015/16	501	35	5
2016/17	408	33	8

Entrance students:
Faculty of Civil Engineering STUBA Bratislava
Number of students in PhD. degree

PhD. study	Year	Year	Year	Year	Year
Form of study	2003/14	2014/15	2015/16	2016/17	2017/18
Daily	244	229	187	170	150
External	49	48	38	25	22
Total	293	277	225	195	172

Entrance students:
Faculty of Civil Engineering STUBA Bratislava
Number of foreign students

Academic year	2013/14	2014/15	2015/16	2016/17	2017/18
Number of all students	3500	3268	2911	2590	2251
Number of foreign students	102	86	90	50	77
Number of foreign students in %	2,9	2,6	3,1	1,9	3,4

Students learning

The course units effectiveness

- the number of students who have to take the examination in academic year
- The number of students who have passed the examination in the academic year
- The medium value of the grades who have passed the examination
- The grade variance

Students learning

The course units effectiveness

- The control of the results of the assesment tests (adequacy of the the test to check the level of achievement of the learning outcomnes)
- Correctness of the assesment of the students learning by lecturer
- Control of the development of the assesment tests
- Ex-post control of the written tests

Students progression in their studies

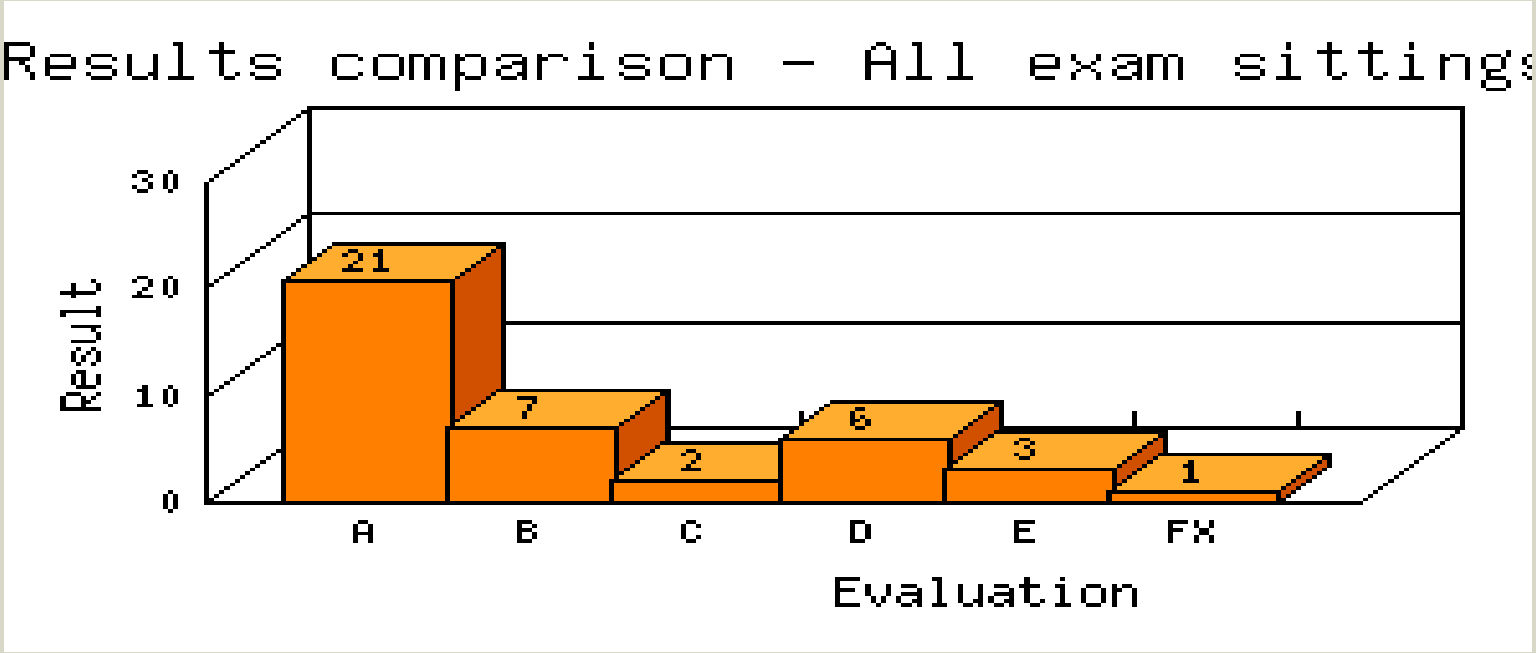
The course units effectiveness

- The number of students who pass from one course year to the next one and number of unsucceessful students
- The median and the mean value with variance of the number of ECTS credits with which students pass from one course year to the succesive one
- The number of graduates within the official length of the SP.

Students progression in their studies

Faculty of CE STUBA Bratislava- Example of evaluation the students in one unit (Output from AIS)

- **All exam sittings** (attendance: 40)
- **Course supervisor: prof. Boris Bielek, PhD**



Students opinion on the education process

The educational process effectiveness by students

- The course units
- The training period outside
- The periods of international mobility
- The student support services (final year students)
- The survey of the entrance students opinion (orienteering services) www.stavebnafakulta.sk
- Comment: Form of monitoring: min. list of questions reported in document

Students opinion on the education process

Monitoring instruments:

- On-line or paper questionnaires
- Interviews
- Before the end of lessons
- During examination period
- Free discussion meeting of students with dean, vice – dean for educational process, guarantour etc.

Students opinion on the education process

Participation of students in evaluation of educational process

Faculty of Civil Engineering STUBA Bratislava

Academic year	10/11 Summer	11/12 Summer	12/13 Summer	13/14 Summer	14/15 Summer	15/16 Winter	15/16 Summer	16/17 Winter	16/17 Summer
Possible number of respondents	3669	3558	3510	3366	3093	2950	2720	2568	2432
Real number of respondents	939	1238	1418	1500	1500	1567	1211	1474	1265
Participation in %	25	34	40	44	48	53	44	57	52
Number of units	542	397	393	386	371	454	353	398	349
Number of units with feedback	377	339	342	334	321	301	296	289	290
Units evaluation in %	69	85	87	86	86	66	83	72	83

Graduates´ placement

AIM

- Application of graduate qualification on market
- Correspondence of the SP educational objectives to the education needs of a labour market
- Monitoring of the graduates´placement on market through the survey:
  - The percentage of employed graduates
  - The percentage of graduates for PhD. study (Master graduates)
  - The placement time in the labour market
  - The effectiveness of the degree in the working activity after 1 +3 years since graduation
  - The number of students from Bc degree to Master degree

Employed graduates´ and employers´ opinion on the graduates´education

AIM

- Checking the adequancy of SP learning outcomes to the educational needs of the labour market
- Monitoring the opinions of the employed graduates on the education process (after 1 + 3 years since graduation)
- Monitoring the opinions of employers on the graduates education

Employed graduates´ and employers´ opinion on the graduates´education

Monitoring instruments

- On-line or paper questionnaires
- Interviews (guarantor or head of department with graduates)
- Periodicity (annual or every 3 years)
- Percentage of employed graduates to total number of graduates
  - Comment: This activity needs to keep contact to all graduates for possible future comminication

Accreditation process steps for creation of study programmes in STUBA

Approval of field of studies by Ministry of education in Slovakia

Proposal of study programme (s) in approved field of study by guarantor of study programme (SP) at faculties

Faculty and university requirement to approve SP by accreditation commision

Ministry of education according to proposal of accreditation commision approves SP at university for 5 years

Starting of education process according to approved SP at university

Process steps for preparing of SP for successful accreditation in STUBA

Guarantor of SP must be professor at faculty

Guarantor of SP must prepare own scienfic-pedagogical characteristics according to requirements of ministry and accreditation commision (AC)

Scientific-pedagogogical characteristcs of guarantors of SP and guarantors of subjects:

- Name of guarantor and pedagogical titles (Prof, Assoc.Prof)
- Name and place of faculty
- Information about education and qualification level
- Information about number of successful finishing graduates
- Actual pedagogical activities (lectures, name of subjects etc)
- Actual scientific and publication activities (domestic and foreign scientific projects, CC or Scopus papers etc)

Scientific-pedagogogical characteristcs of guarantors of SP and guarantors of subjects:

- The most important publications and projects during all history and during last 6 years
- Citation index
- Awards and other important recognition
- Memberships in international organization and committees
- Date and signature

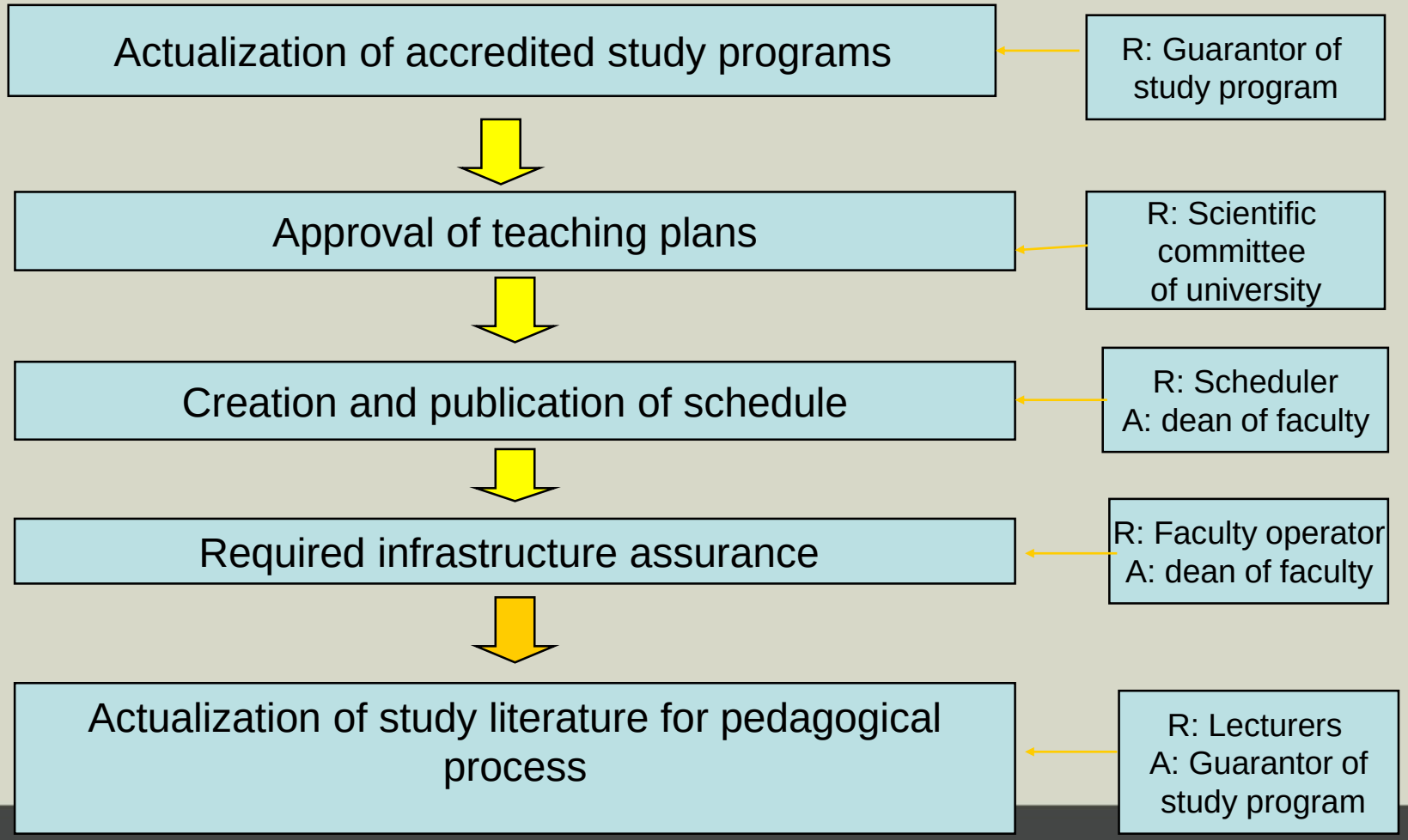
Guarantor of SP must assurance:

- number of semesters of SP,
- structure of subjects of SP in semestres,
- number of hours of lectures and seminars during week,
- evaluation of subject (credits, exam),
- number of credits of subjects,
- guarantor of subjects (Prof, Assoc. Prof)
- types of subjects
- information list of subjects

Information list of subjects:

- Responsible person (lecturer- Prof. Assoc. Prof)
- Code and name of subject,
- Number of hours by week and total during semester
- Number of credits
- Characteristics and brief content of subject
- Conditions and requirements for successful finishing of subject,
- Literature
- Language

QUALITY ASPECTS OF EDUCATION PROCESS



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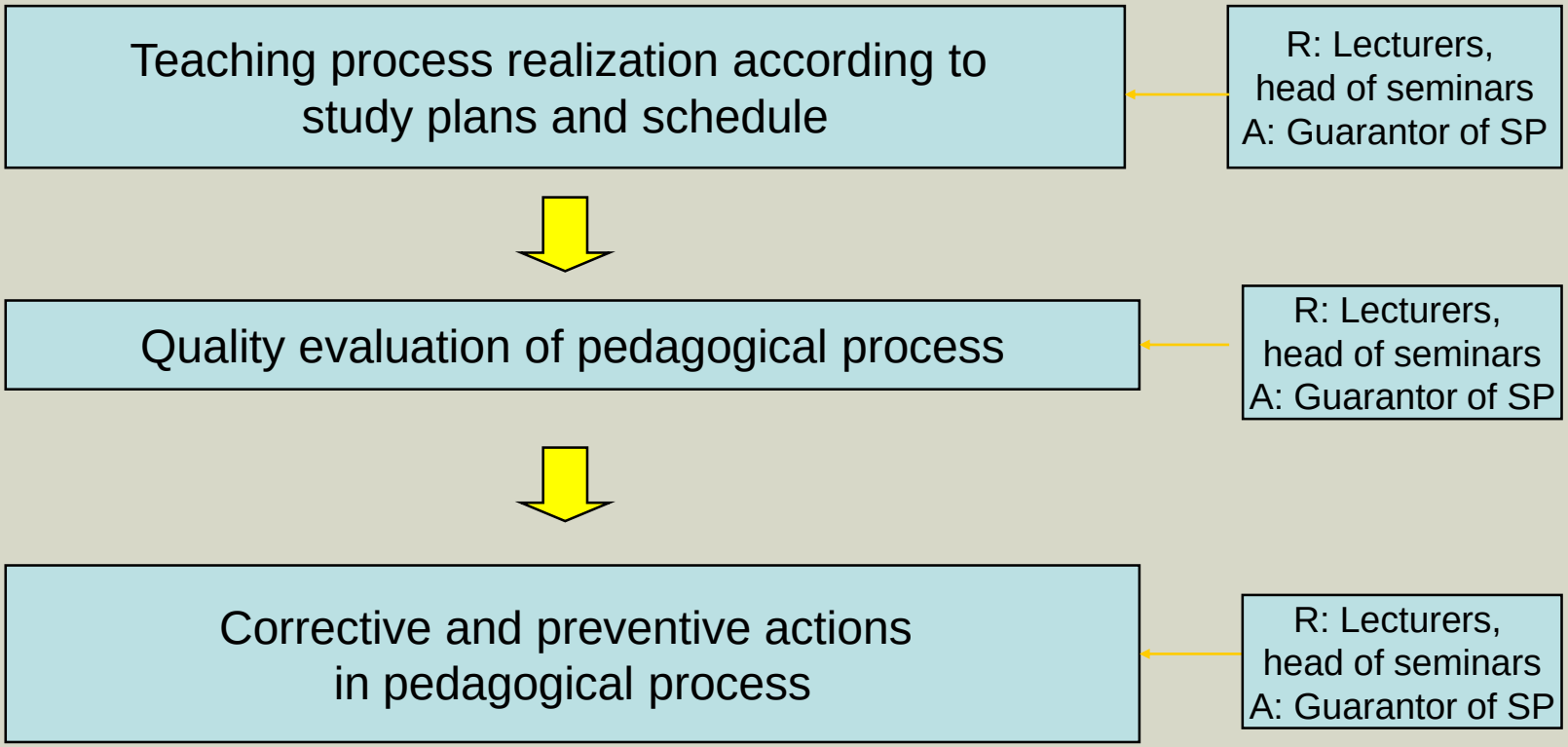
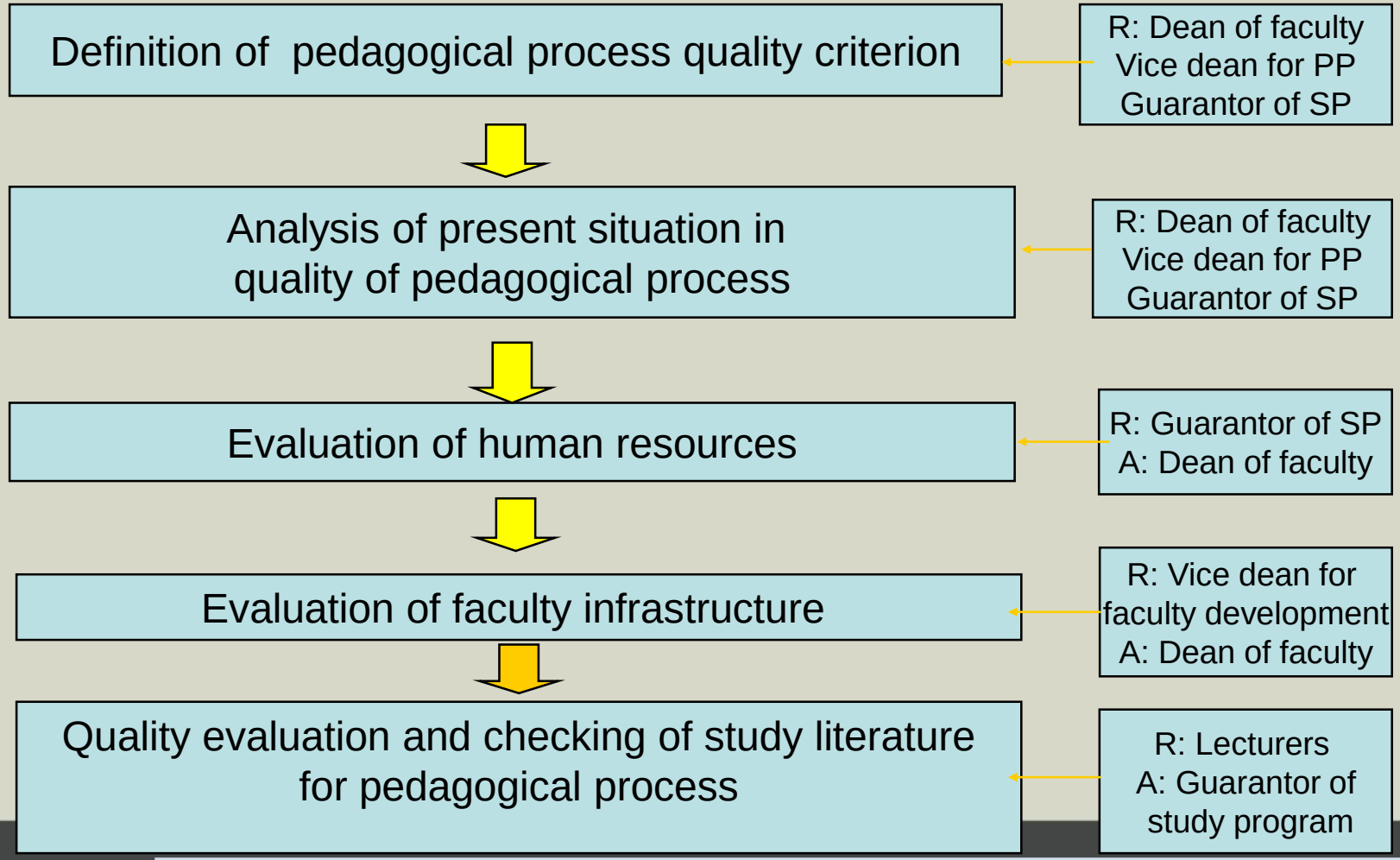
QUALITY ASPECTS OF EDUCATION PROCESS



PEDAGOGICAL PROCESS QUALITY MONITORING



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PEDAGOGICAL PROCESS QUALITY MONITORING

Quality evaluation of lectures and by students, faculty top management and guarantor of study program

R: Guarantor of SP
A: Dean of the faculty

Quality evaluation of pedagogical process by practice

R: Vice dean for PP
Head of study parlament

Evaluation of pedagogical process quality improvement

R: Lecturers, head of seminars
A: Guarantor of SP
Dean of faculty

Thank You !

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