



Universität
Basel

E-Assessment between „Mastering the Masses“ and „Enabling Variety“

Educational Technologies, Ursula Schwander, 9 February, 2017

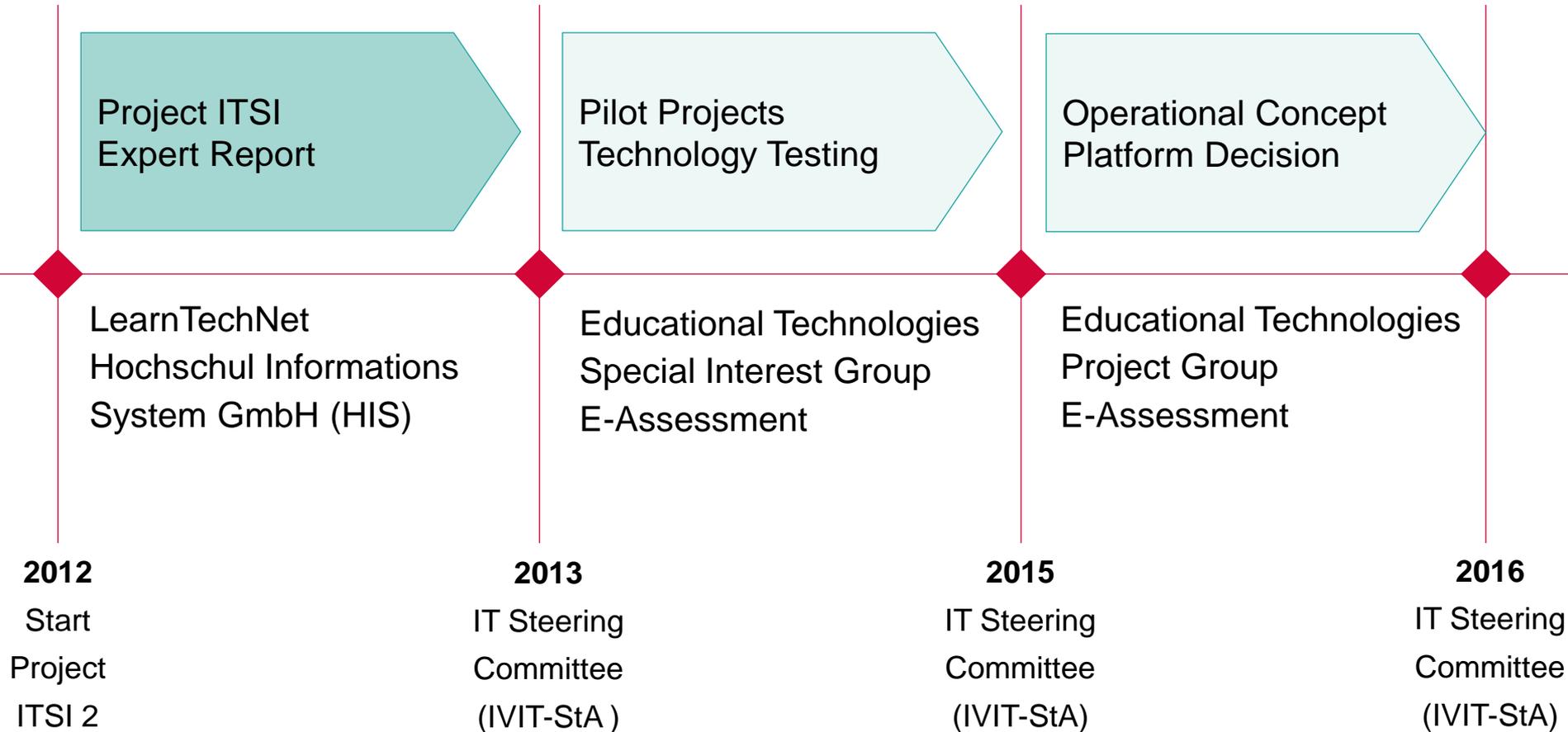


Agenda



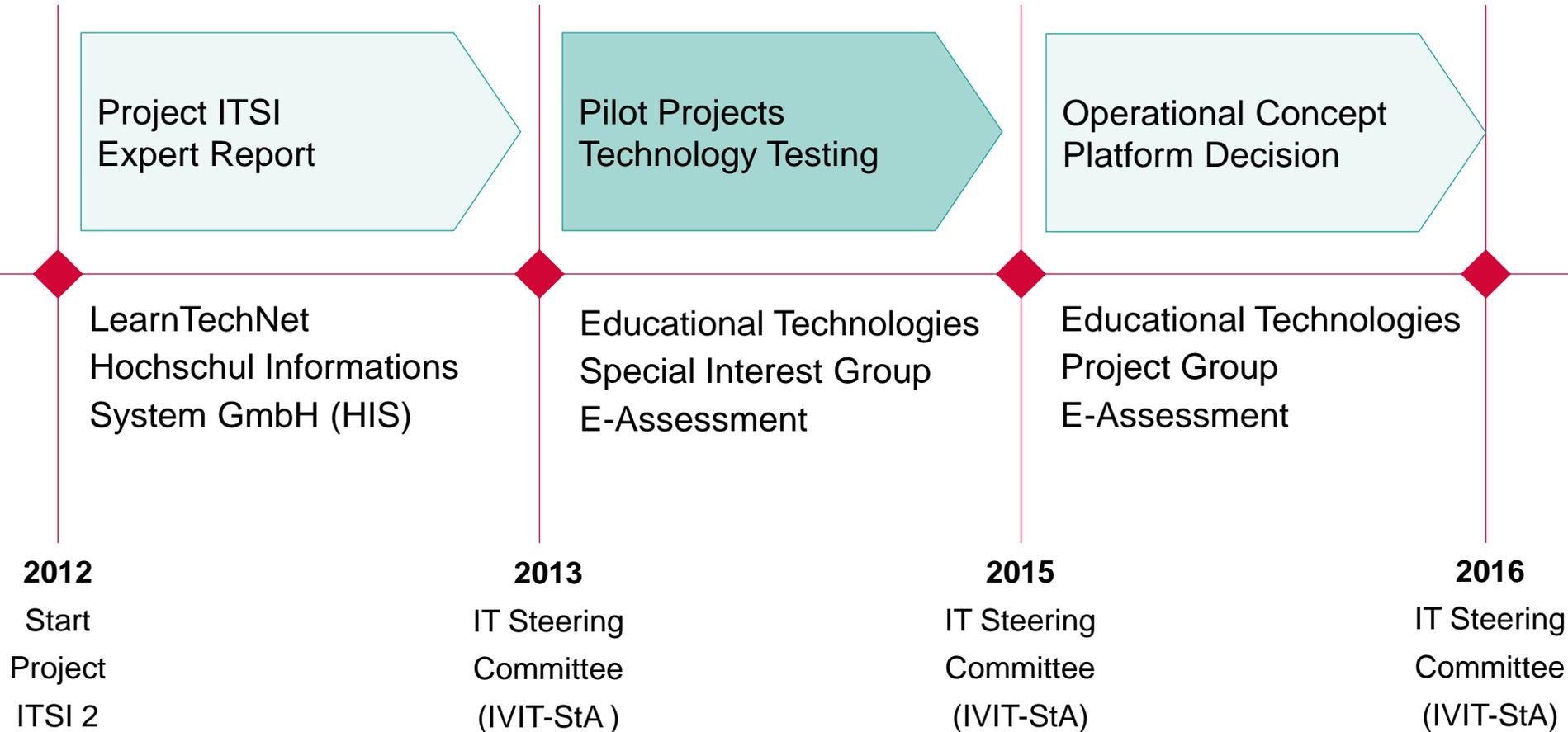
Background

E-Assessment at the University of Basel



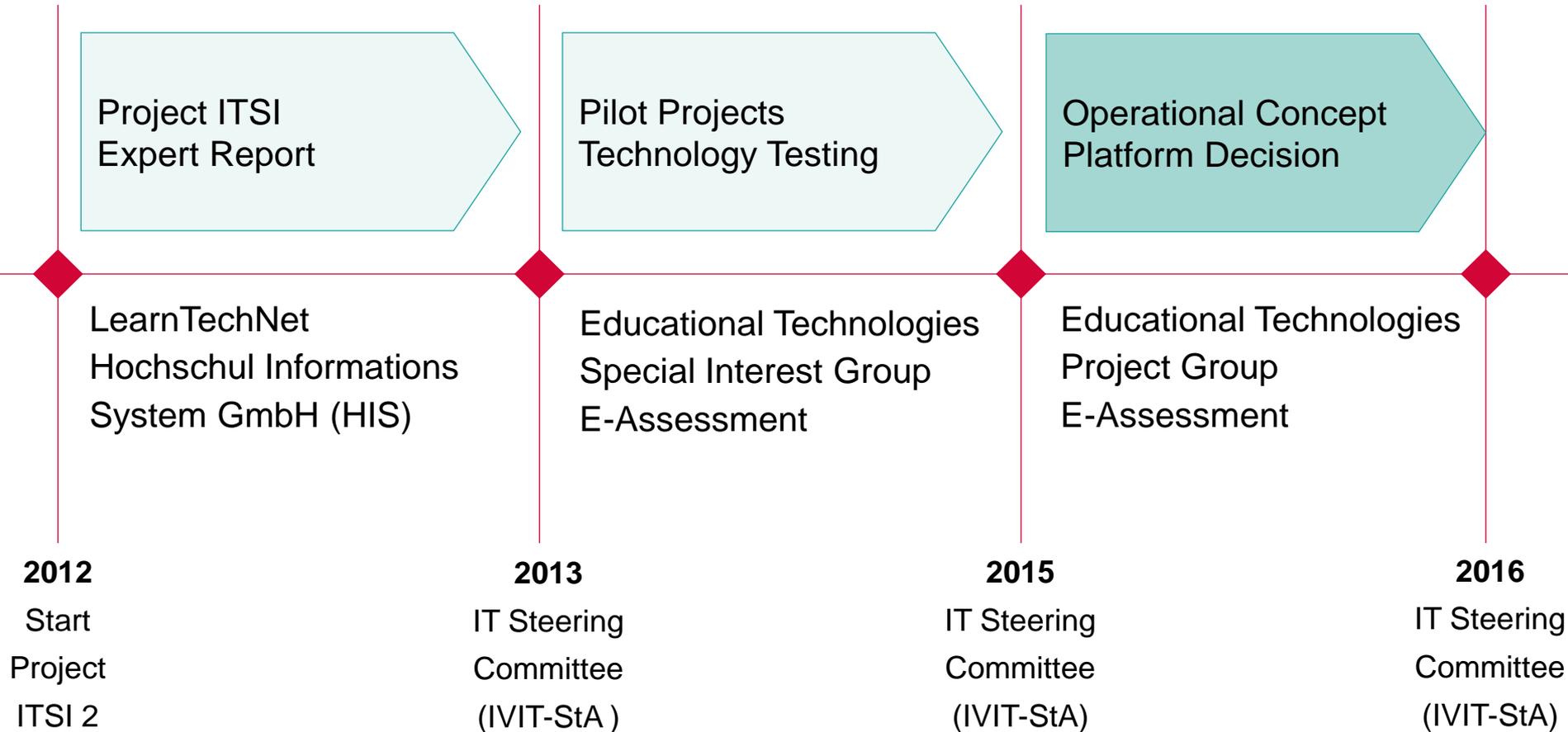
Background

E-Assessment at the University of Basel



Background

E-Assessment at the University of Basel



Objectives

E-Assessment at the University of Basel

1

Increase of Quality

- expand didactic possibilities
- competence orientation (practical exams)
- improve quality management

2

Efficiency Enhancement

- time saving (evaluation of exams)
- easier exam management
- transparent and well documented processes

3

„Keeping with the times“

- IT in research and teaching is standard.
- The use of digital media for teaching and learning is a key criterion in rankings.

Scenarios

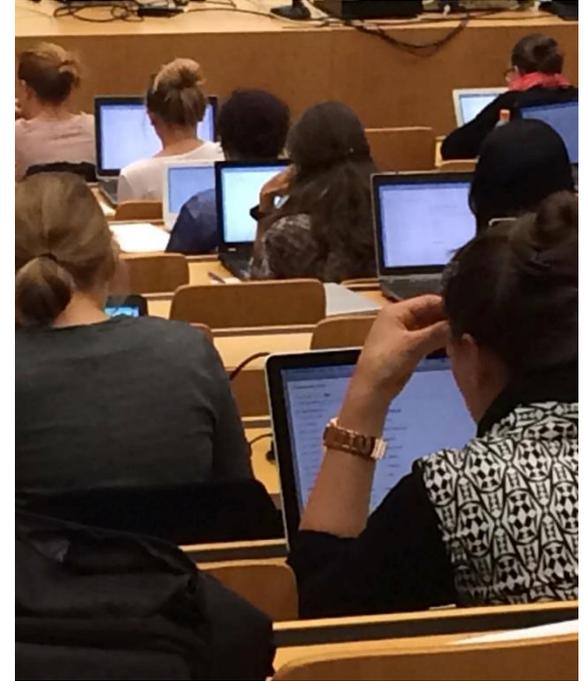
Spoilt for Choice



Optical Mark Recognition (OMR)



Tablet Exams (iPads)



Student Laptops (BYOD), Learning Management System (LMS) and Secure Browser

Scenarios

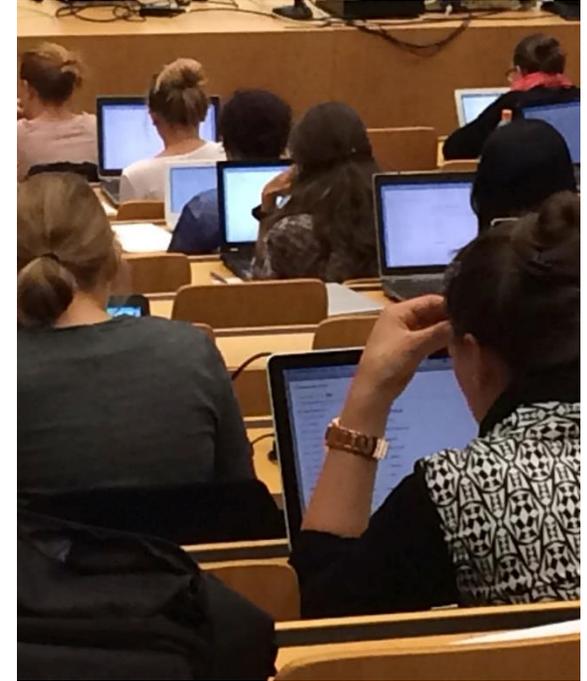
Decision IVIT-StA



Optical Mark Recognition (OMR) **with EvaExam**



Tablet Exams (iPads)



Student Laptops (BYOD), Learning Management System (LMS) **ILIAS** and **Safe Exam Browser (SEB)**

Scenarios

„Mastering the Masses“ and “Enabling Variety“

Focus 1

«Mastering the Masses»

- summative exams
- large groups of examinees
- multiple choice exams
- easy to handle
- cost-effective

Scenario:

Optical Mark Recognition (OMR)
with EvaExam

Focus 2

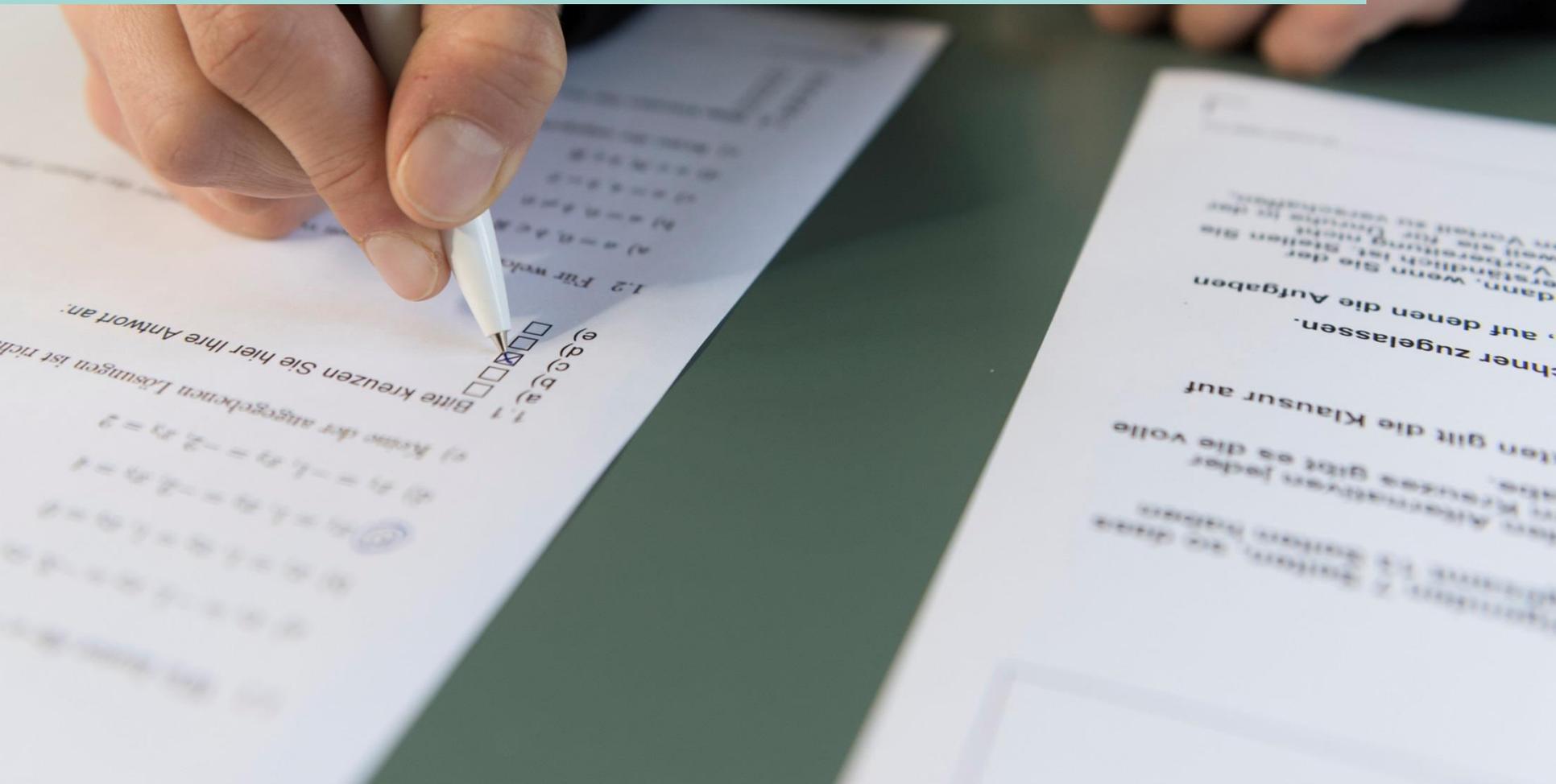
«Enabling Variety»

- formative exams
- summative exams for specific requirements
- flexible
- adaptable

Scenario:

BYOD, LMS ILIAS, Safe Exam
Browser

Focus 1 «Mastering the Masses»



Focus 1: Pilots Summary

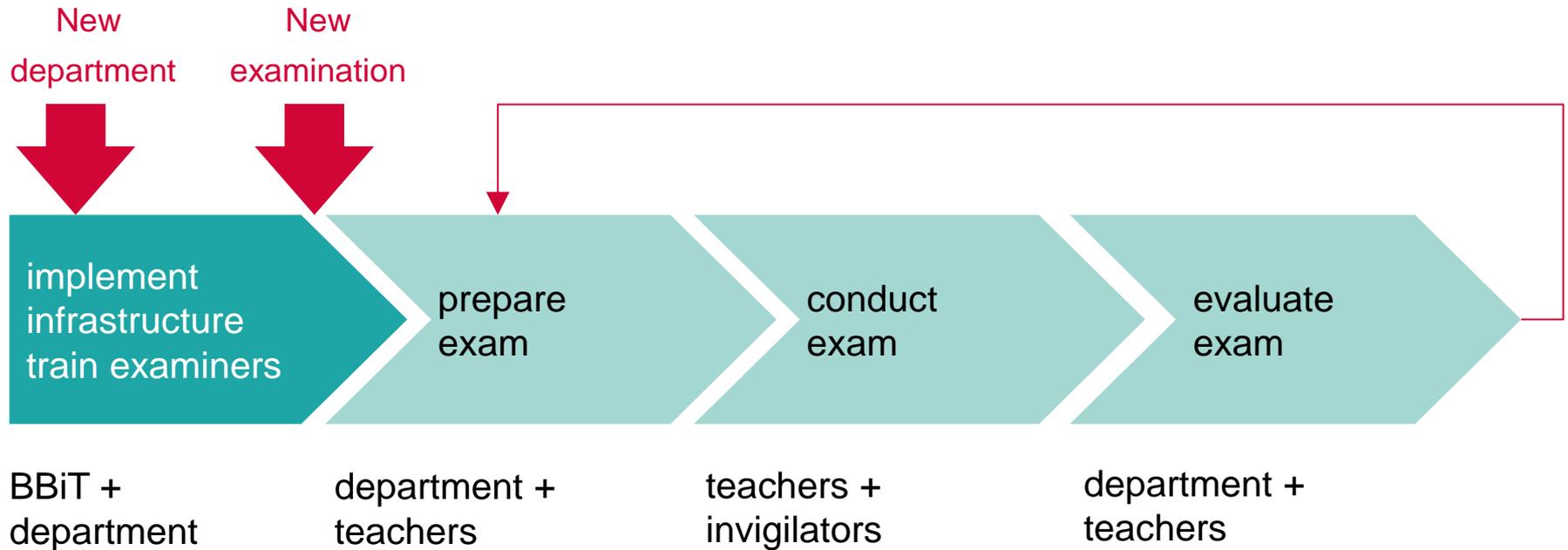
Liste aller Teilbereiche

Teilbereich	Nutzer	Details	Löschen	Teilbereichsadministratoren
<input checked="" type="checkbox"/> BBIT	 5			TBA BBIT *
<input checked="" type="checkbox"/> Biozentrum	 14			TBA Biozentrum *
<input checked="" type="checkbox"/> Chemie	 6			TBA Chemie *
<input checked="" type="checkbox"/> Digital Humanities Lab	 2			
<input checked="" type="checkbox"/> DUW	 10			TBA DUW *
<input checked="" type="checkbox"/> Juristische Fakultät	 8			TBA Jus *
<input checked="" type="checkbox"/> Mathematik und Informatik	 4			TBA Mul *
<input checked="" type="checkbox"/> Sport, Bewegung und Gesundheit	 1			

Neuen Teilbereich anlegen

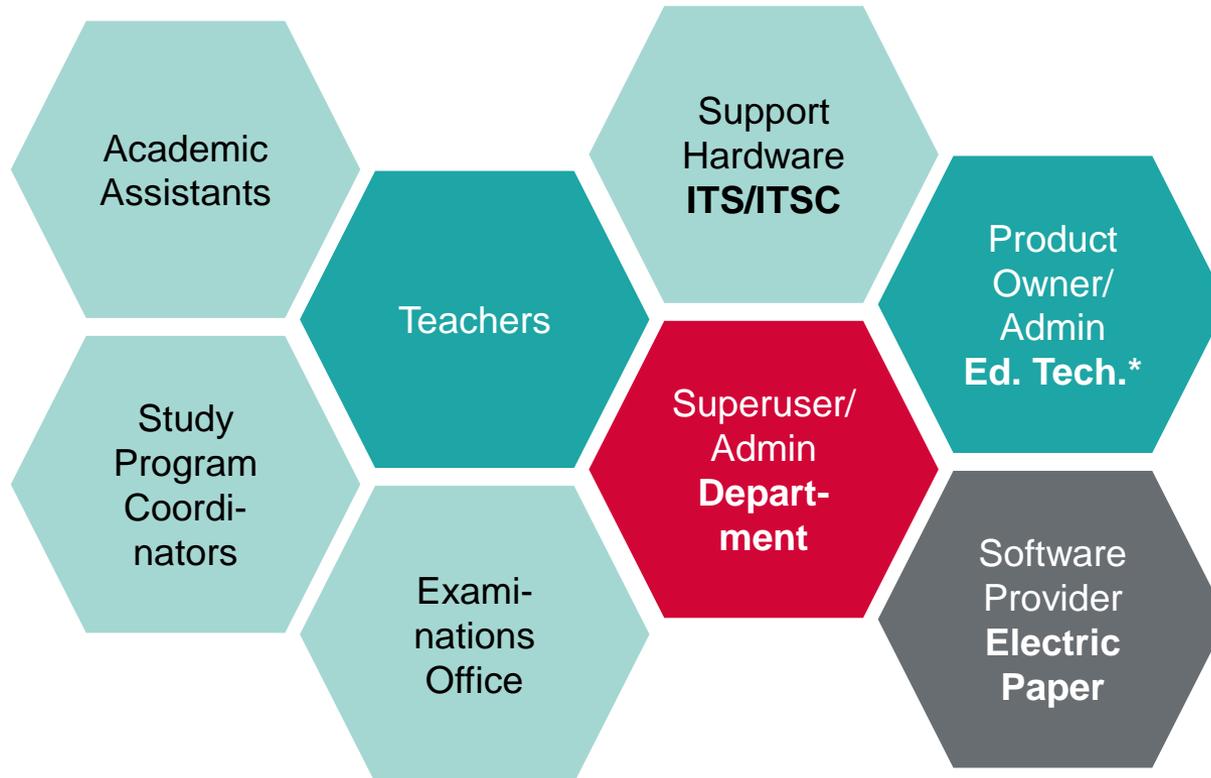
Operational Concept

Implementation: Processes



Operational Concept

Players, Responsibilities and Tasks



*Educational Technologies (BBiT)

Operational Concept

Finance Costs

Costs (University)



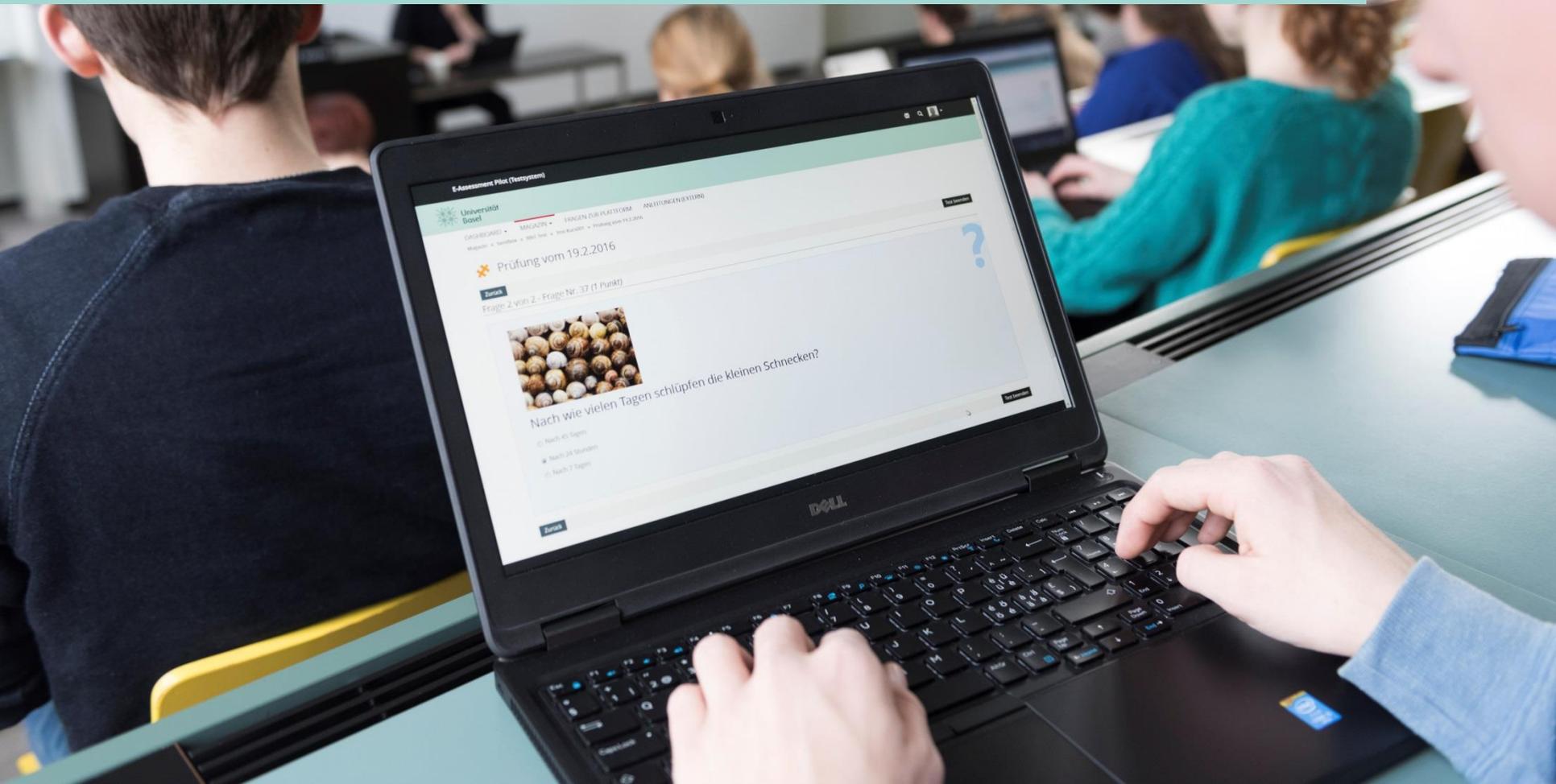
- Basic license EvaExam
- Further volume licenses
- Scanstation software
- Support and maintenance
- External data hosting
- Trainings

Financial Participation (Departments)



- Basic contribution (fix, p/a)
- Contribution based on the number of processed examination sheets (variable, p/a)
- Additionally needed hardware (e.g. scanner)

Focus 2 «Enabling Variety»



Focus 2: Pilots

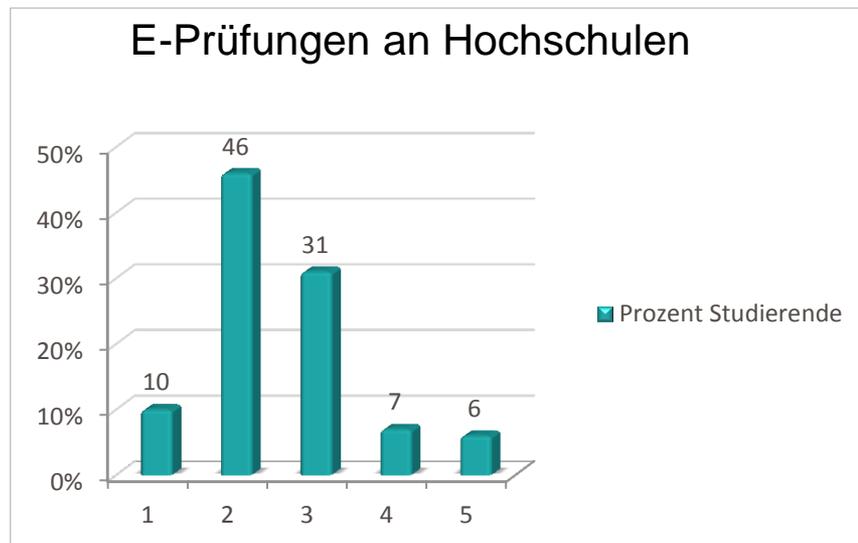
Key Data

	Media Sciences	Pharmaceutical Sciences
Date	December 2015	August 2014
Study Program	B.A. Media Sciences (1.Sem)	M.A. Pharmacy
Objectives	summative examination: obligatory assessment component (3 credit points)	diagnostic examination: entrance test for the practical year
Number of students	127	74
Software	ILIAS + SEB	OpenOLAT + SEB
Hardware	BYOD	BYOD
Question formats	multiple choice, cloze questions, essay	single choice, multiple choice (Kprim)
Duration of the exam	90 min	30 min

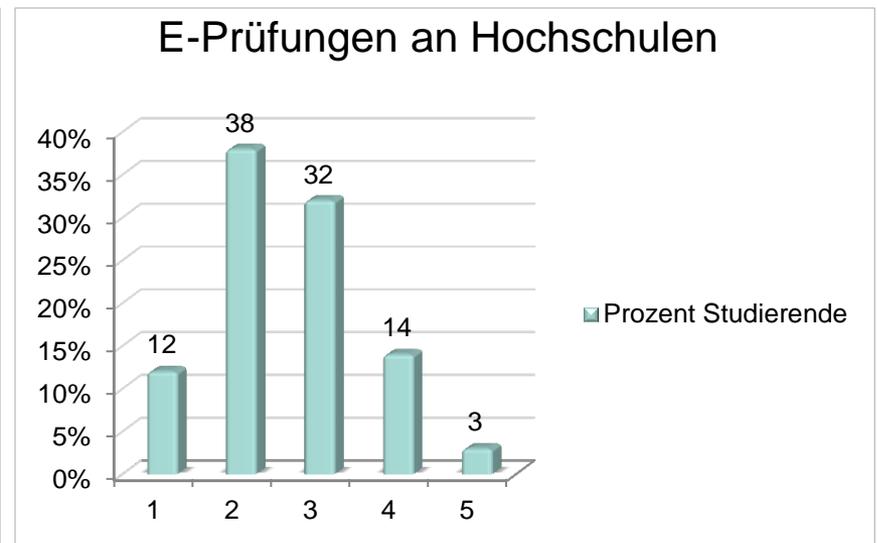
Evaluation: Results

E-Assessments in Higher Education

How would you rate the use of e-assessments in higher education in general?
(Scale: 1 = very good to 5 = very bad)



Media Sc. 2015 (n = 69)

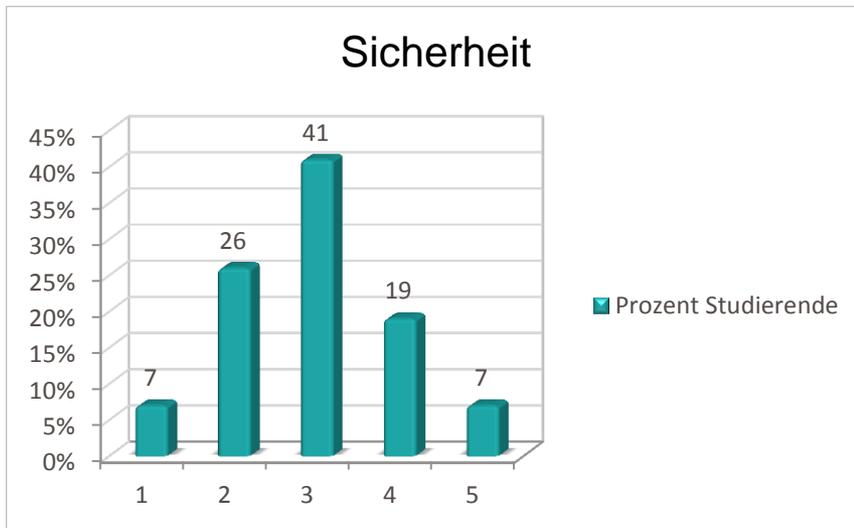


Pharma 2014 (n= 74)

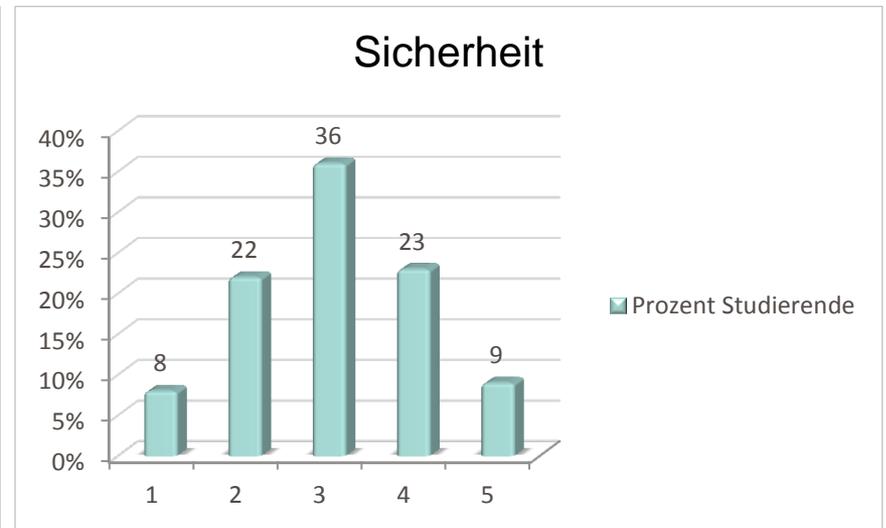
Evaluation: Results

Feeling safe?

How safe did you feel during this computer assisted examination compared to a paper & pencil examination?
(Scale: 1 = *very safe* to 5 = *very unsafe*)



Media Sc. 2015 (n = 69)



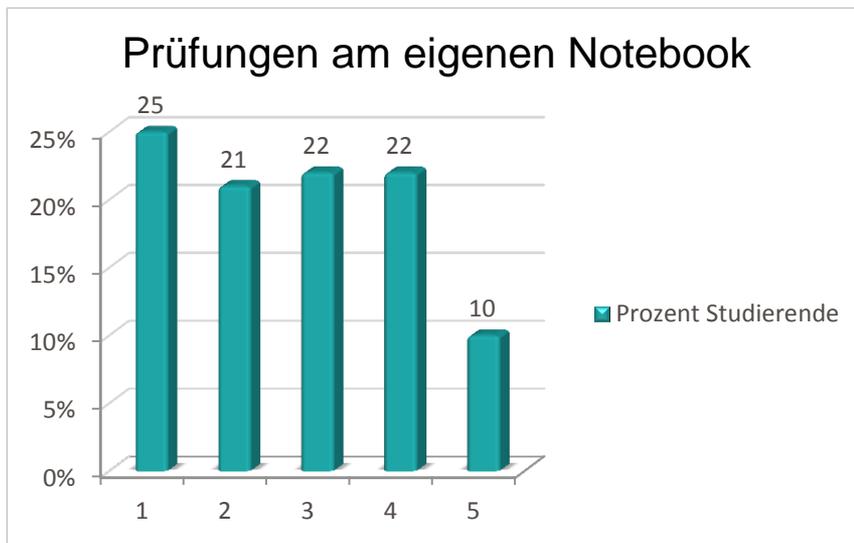
Pharma 2014 (n= 74)

Evaluation: Results

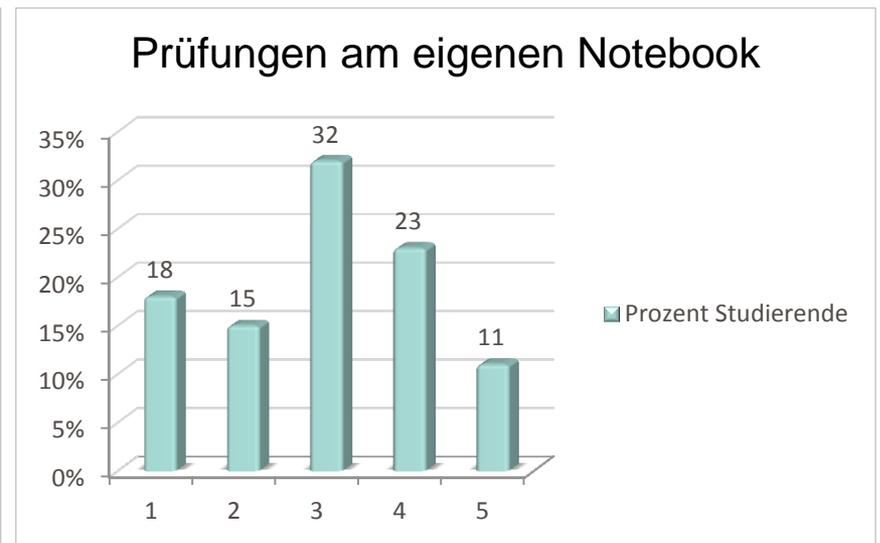
BYOD

In your opinion, how useful is it to take examinations on your own laptop compared to examinations which are conducted in computer rooms of the university?

(Scale: 1 = very useful to 5 = not useful at all)



Media Sc. 2015 (n = 69)

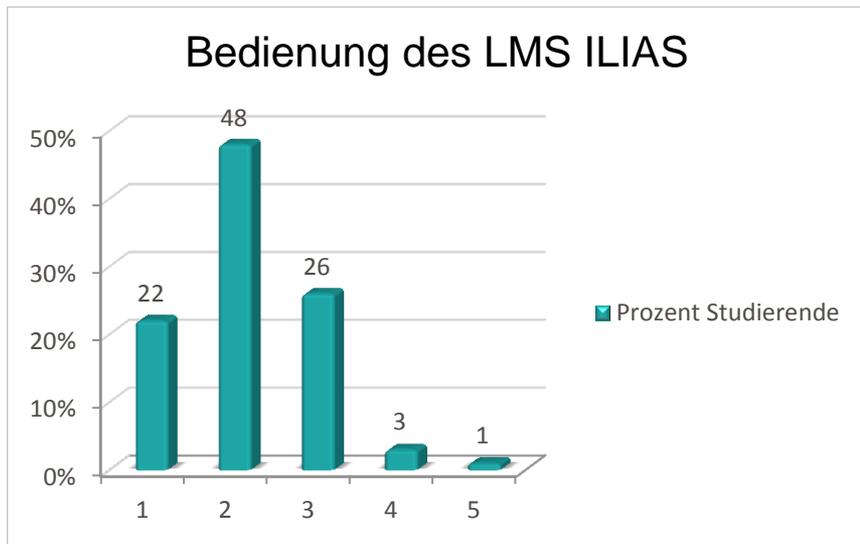


Pharma 2014 (n= 74)

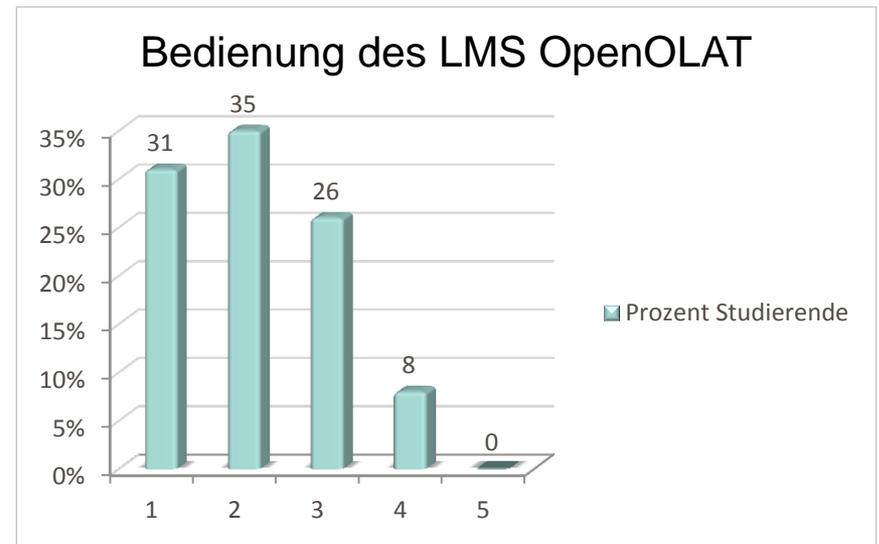
Evaluation: Results

LMS: Usability

How intuitive was the operation of the LMS user interface?
(Scale: 1 = *very intuitive* to 5 = *not intuitive at all*)



Media Sc. 2015 (n = 69)



Pharma 2014 (n= 74)

Evaluation: Results

Advantages

What is the main advantage of computer assisted assessments?

Main advantage	Mentions	Main advantage	Mentions
quick writing	28	fast result transmission	34
make corrections easily	23	paper saving/environmental friendliness	15
better overview/clarity	17	better overview/clarity	10
better readability	12	better readability	8
pleasant work with own device	7	make corrections easily	6
paper saving/environmental friendliness	7	more silence in the examination hall	4

Media Sc. 2015 (n = 66)

Pharma 2014 (n= 69)

Evaluation: Results

Disadvantages

What is the main disadvantage of computer assisted assessments?

Main disadvantage	Mentions
dependence on technical problems	36
too much time needed until everything works	15
problems with own device	11
high noise level in the examination hall	9
unequal conditions for the students	8
not to be able to write by hand	6

Media Sc. 2015 (n = 68)

Main disadvantage	Mentions
dependence on technical problems	33
too much time needed until everything works	20
problems with own device	19
lack of technical know-how	4
no handwritten notes possible	4
no reply	4

Pharma 2014 (n= 70)

Challenges

- secure and stable examination software
- reliable hardware
- server performance (high availability)
- suitable rooms
- functioning, smooth processes
- adequate range of services (technical, didactical support etc.)
- legal certainty



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Thank you
for your attention.

Discussion

1. BYOD is no option for e-assessment.
2. How would I learn best to conduct e-assessments with an LMS?
3. As an EvaExam Superuser, how would you manage the processes and infrastructure at your department?