

HIS Workshop “Elektronische Prüfungen” 5./6. November 2008



Universität Zürich



Neue Wege in der Prüfungskultur

Cornelia Ruedel

E-Learning Center, Universität Zürich

<http://www.elc.uzh.ch>



Agenda:

- Aktuelle Prüfungsalltag
- Probleme mit den konventionellen Prüfungen
- Anforderungen an das neue Prüfungssystem
- E-Assessment Kreislauf
- Überblick über Innovationsfelder mit Beispiele
- Fragen



Alltag an der Universität



Aktuelle Prüfungssituation an der Universität Zürich

- vermehrtes Prüfungsaufkommen durch die Bologna Reform
- Prüfungsdurchführung und -auswertung ist eine grosse Personalbelastung



Universitärer Dreikampf: Prüfung, Hausarbeit, Referat



Probleme mit konventionellen Prüfungen

Schriftlich:

fragliche Validität und Reliabilität,
zeitaufwendige Korrektur,

Problem: Handschrift

→ One doesn't expect reality, but in
genre → what is a Romance?
only tangential interest in "genre"
today - interest away from text, near
of the work
wholly human to want to order
genre = certain expectations to read
Presupposition: you know what as re
find out about the parodies



Mündlich:

fragliche Validität, Reliabilität
und Fairness,
jeder Prüfling hat andere Bedingungen
Zeitaufwendige Durchführung

Universitäres Assessment: Gegensätzliche Vorstellungen von Studium und Lehre



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Perspektive der
Dozierenden

Welche Lehrinhalte sollen
vermittelt werden?
Was und wie sollen die
Studierenden lernen?



Welche Lehr-Lernkonzeption
sind geeignet?



Wie kann das Lernziele bewertet
werden?

**Leistungsnachweis als
Endpunkt und
lästiges «Anhängsel»!**

**Leistungsnachweis als
Ausgangspunkt und
wichtiges «Herzstück»**

Was sind die Lerninhalte?



Wie kann ich am Ziele am
effektives erreichen?
Minimal- oder Maximalprinzip



Was sind die Prüfungskriterien?
Was muss ich wissen?

Perspektive der
Studierenden

**Unterschiedliche
Erwartungen**

The Higher Education Academy

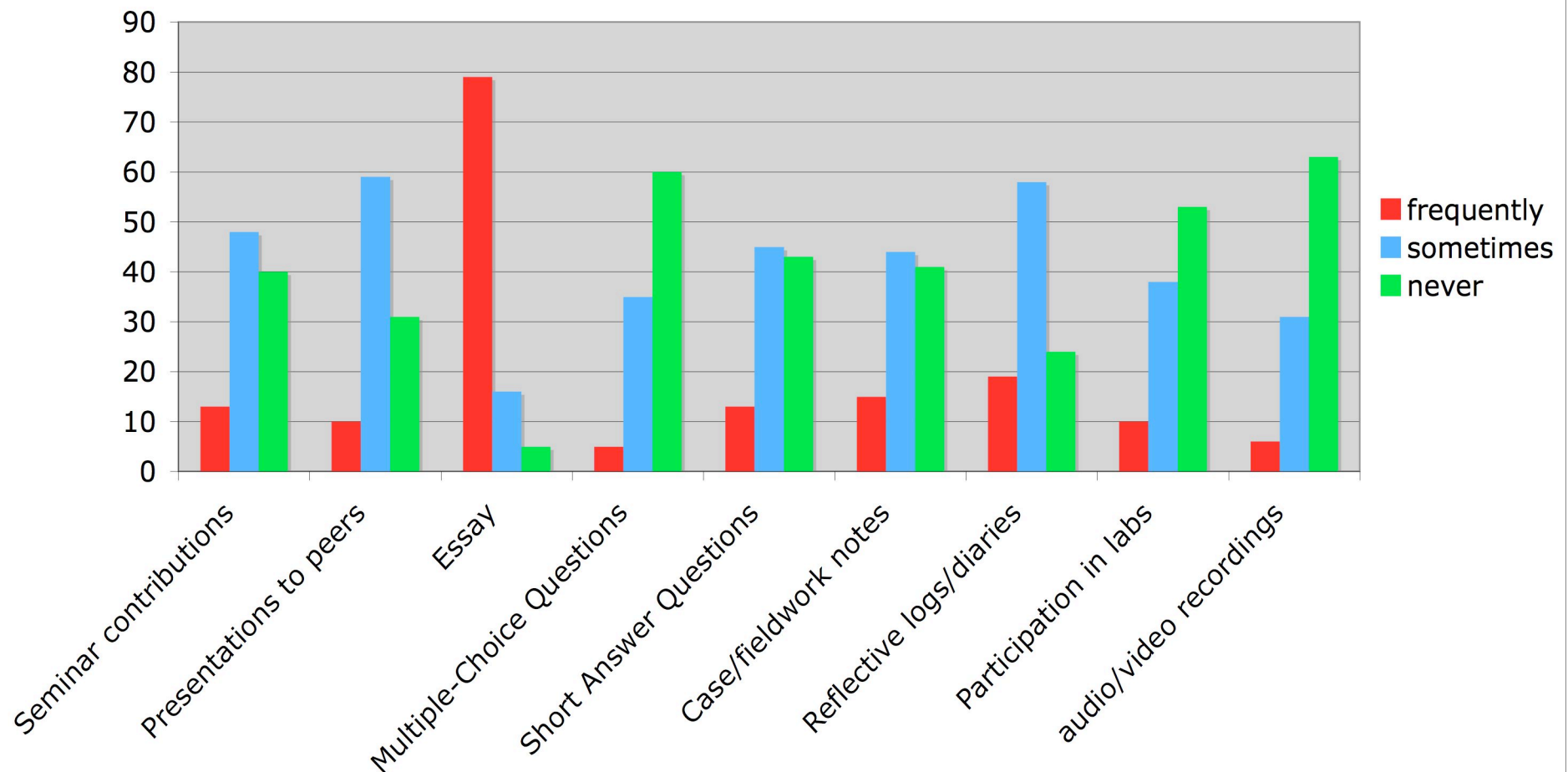
Maclellan (2002): Perceptions of Assessment



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Mode of Assessment



Anforderungen an ein neues Prüfungssystem



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Rich Real World Tasks
+ Higher Order Thinking
+ Collaboration

= 21st Century Learning

+ Transparency
+ Self-assessment
+ Feedback
/ reflection

= 21st Century Assessment

E-Assessment als Chance

+ mehr Vielfalt
Prüfung

+ weniger Zeitaufwand für die
Dozierende

= ist das möglich?



Trends in E-Assessment

1991 - Verminderung der Prüfungskorrekturen
(summativ)

1996 - Verbessertes Feedback an die Studierenden
(formativ)

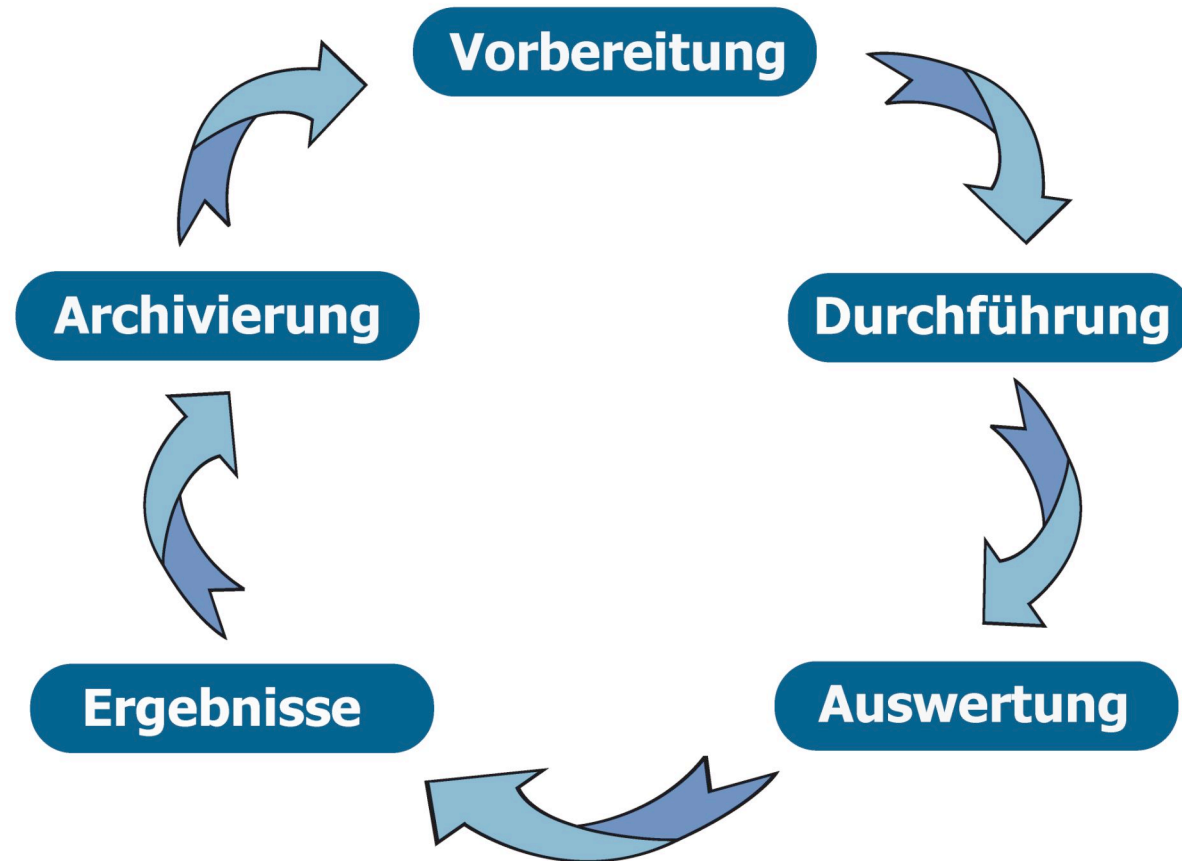
2001 - Einbau von Lösungshinweisen im Feedback
(formativ und summativ)

2006 - Verminderung des Aufwand bei der
Fragenerstellung (formativ und summativ)



Zukunftsfelder «E-Assessment»

E-Assessment Kreislauf:



Schulung und Beratung

Administration

Evaluation



Zukunftsfelder E-Assessment

Vorbereitung

Kompetenz

Funktion

Format

PrüferIn

Durchführung

Prüfungsort

Zeitpunkt
/-raum

Auswertung

Bewertung

Ergebnisse

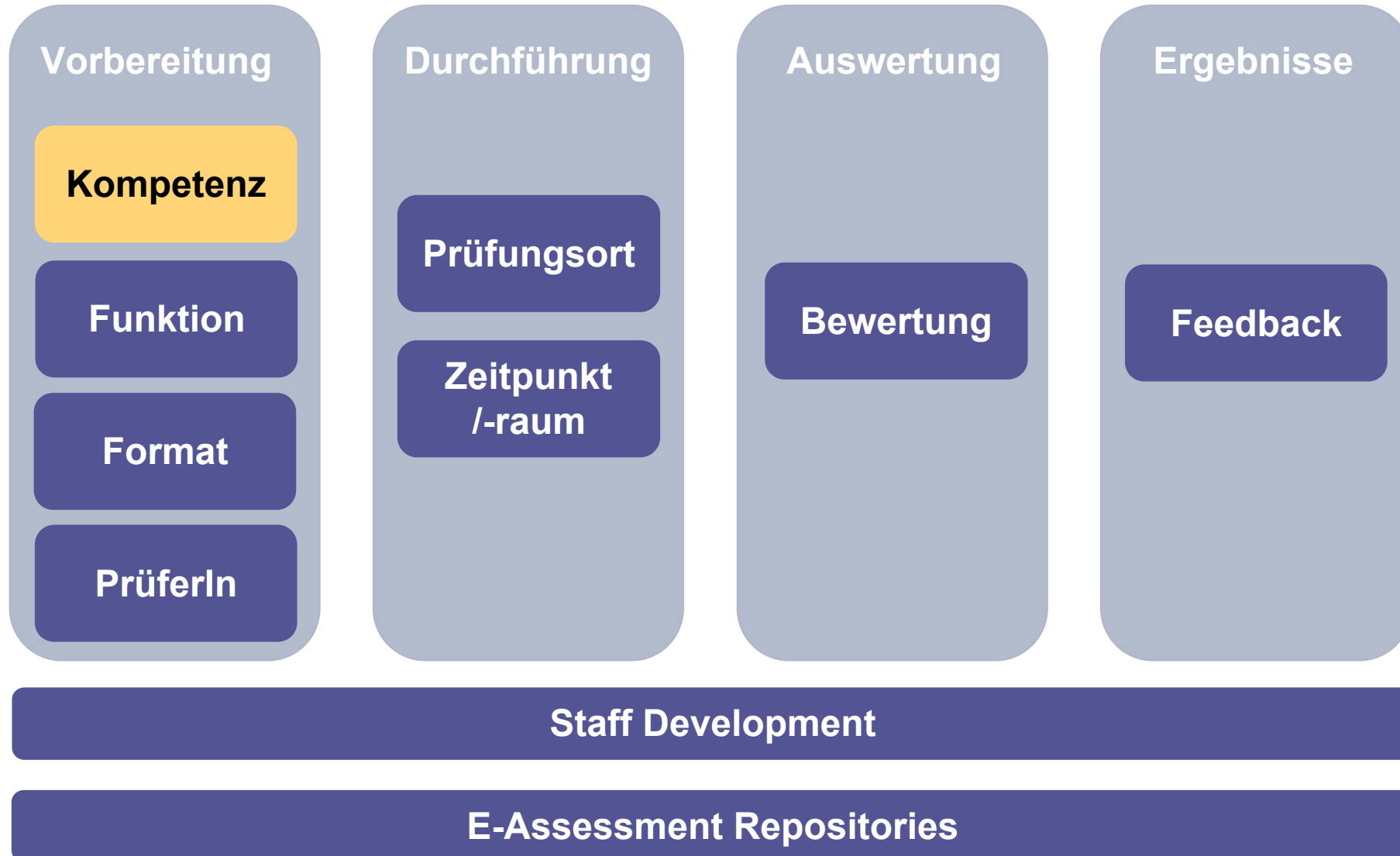
Feedback

Staff Development

E-Assessment Repositories



Zukunftsfelder E-Assessment



Vorbereitung: Kompetenz

Was wird geprüft?

- Sachkompetenz
- Methodenkompetenz
- Sozialkompetenz
- Selbstkompetenz



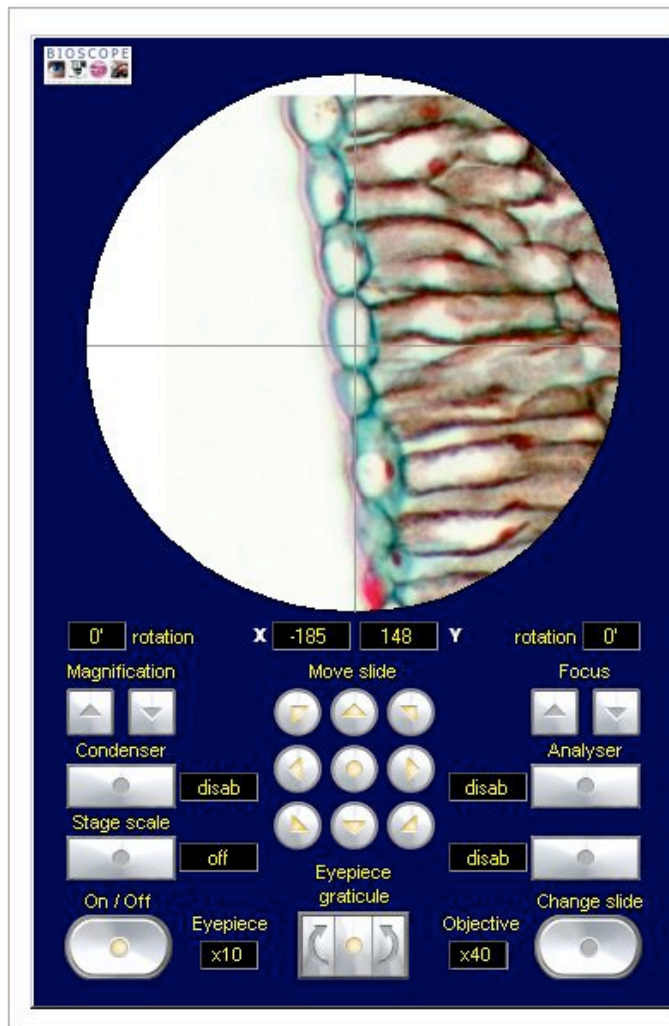
Projekte:

- Bewertung der Reflektion mittels Diskussionsforum an der University of Leicester
- Online-Mikroskope der University of Derby
- Open Comment der Open University

Vorbereitung: Kompetenz: University of Derby: Mikroskope für Cambridge University



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2. Identify tissues

Current slide: Slide K1 subsection

4 marks

14% done in 2% of time

Centre the slide EXACTLY on a specific tissue then identify the tissue by selecting from the list below.

Repeat until you have selected FOUR tissues.

	Spongy mesophyll	Vascular bundle	<input type="checkbox"/>
	Chlorophyll	Lower epidermis	<input type="checkbox"/>
	Upper epidermis	Hairs	<input type="checkbox"/>
<input type="checkbox"/>	Stomata	Guard cells	<input type="checkbox"/>
<input type="checkbox"/>	Cuticle	Palisade mesophyll	<input type="checkbox"/>

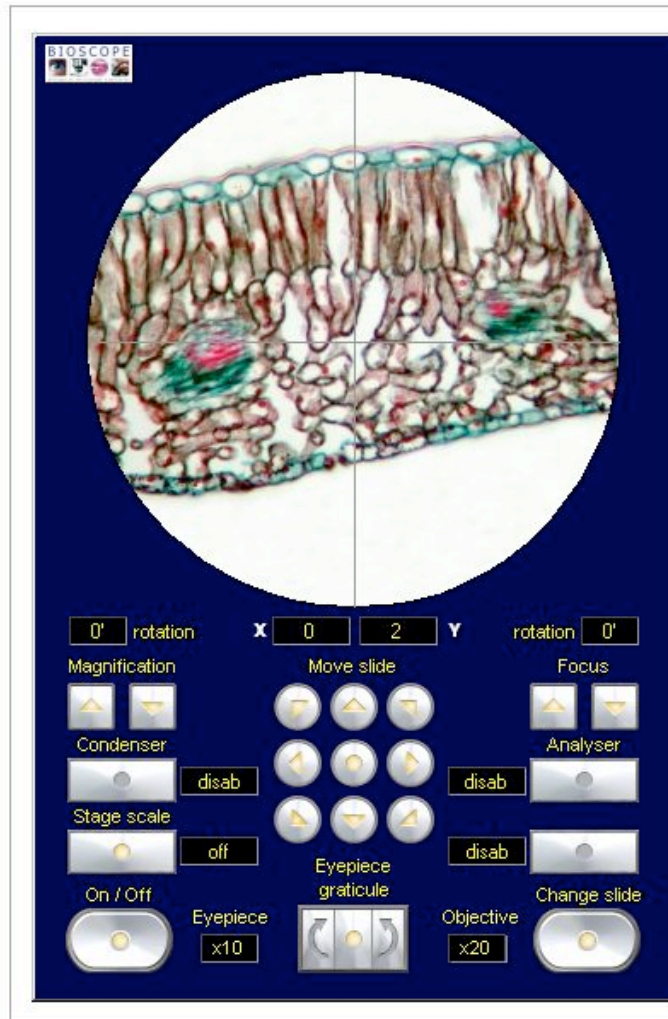
Use the buttons to control the microscope
Move mouse to question area to answer the question

Quit

Vorbereitung: Kompetenz: University of Derby: Mikroskope für Cambridge University



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7. Comparison of Stomata

Current slide: Transverse section of leaf K1

3 marks

86% done in 5% of time

Compare the stomata of slides K1 and K2 using the [Change slide] button to toggle between slides on the microscope.

How would you best describe the contrast between the two specimens?

	only in K1	in K2	in both
Position of stomata			
over all surfaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
exposed directly to environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
on one surface only	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
not exposed directly to environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Protection from environment	K1	K2	both
protected in deep pits or folds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
protected by hairs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
protected by thick cuticle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
protected by thorns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
no protection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Airspaces	K1	K2	both
stomata open onto a network of airspaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
stomata open onto small enclosed airspace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
stomata do not open onto airspace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

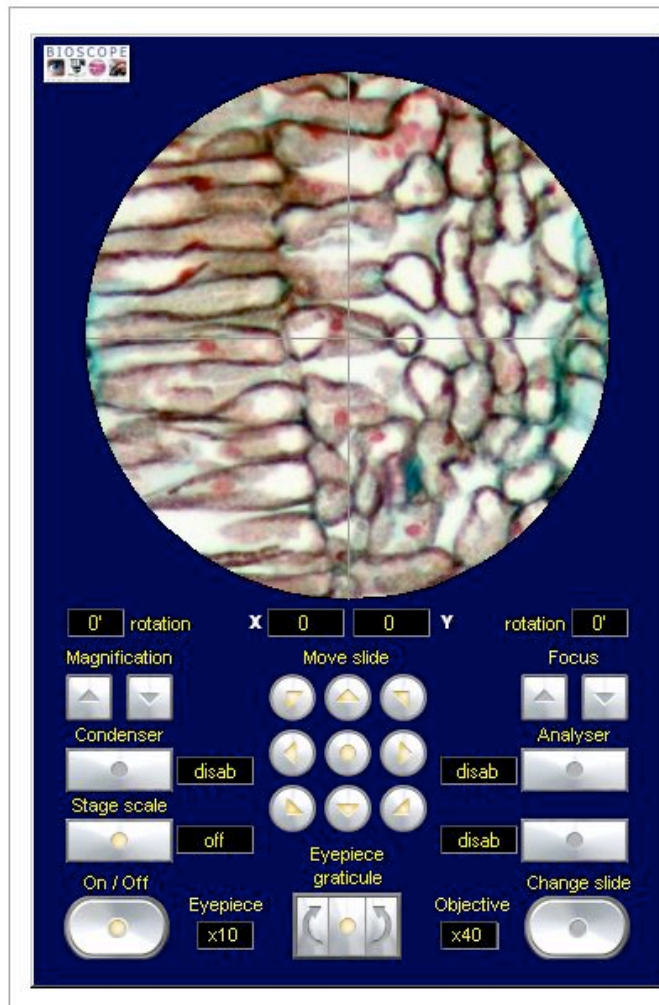
Use the buttons to control the microscope
Move mouse to question area to answer the question

Quit

Vorbereitung: Kompetenz: University of Derby: Mikroskope für Cambridge University



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3. Measurement task

Current slide: Slide K1 subsection

6 marks

29% done in 2% of time

Use the eyepiece graticule to measure the average **THICKNESS** of the **UPPER EPIDERMIS** including **THE CUTICLE**, in graticule units.

Make **AT LEAST THREE** measurements and record them in the spaces provided below.

Calculator				Measured thicknesses of upper epidermis cells			
<div style="border: 1px solid black; padding: 5px;"> 1 2 3 + 4 5 6 - 7 8 9 X . 0 = ÷ +/- Del Clr MS MR MC M+ </div>				1	<input type="text"/>	5	<input type="text"/>
				2	<input type="text"/>	6	<input type="text"/>
				3	<input type="text"/>	7	<input type="text"/>
				4	<input type="text"/>	8	<input type="text"/>
				Average thickness is:			
				<input type="text"/>			
				Graticule Units			

Use the buttons to control the microscope
Move mouse to question area to answer the question

Quit Clear All Clear Submit

Vorbereitung: Kompetenz: Open University: Open Comment



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AA000: Combined Quiz

http://localhost/~stuart/moodle/mod/quiz/attempt.php?q=1

Canada Personal Meet-O-Matic Shopping Open Comment ARM

AA000: Combined Quiz

Open Comment Arts You are logged in as [Stuart Watt \(Logout\)](#)

[Moodle](#) ▶ [AA000](#) ▶ [Quizzes](#) ▶ [Combined Quiz](#) ▶ **Attempt 1** [Update this Quiz](#)

[Info](#) [Results](#) [Preview](#) [Edit](#)

Preview Combined Quiz

[Start again](#)

1 Read the first paragraph in which Joll analyses why the outbreak of the First World War has been studied in such detail. What reasons does he give?

Answer:

[More help](#)

[Save without submitting](#) [Submit all and finish](#)

Vorbereitung: Kompetenz: Open University: Open Comment



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AA000: Combined Quiz

http://localhost/~stuart/moodle/mod/quiz/review.php?attempt=15

Canada Personal Meet-O-Matic Shopping Open Comment ARM

AA000: Combined Quiz

Open Comment Arts You are logged in as [Stuart Watt \(Logout\)](#)

[Moodle](#) > [AA000](#) > [Quizzes](#) > [Combined Quiz](#) > [Review](#) [Update this Quiz](#)

[Info](#) [Results](#) [Preview](#) [Edit](#)

[Start again](#)

Started on:	Thursday, 3 July 2008, 01:16 pm
Completed on:	Thursday, 3 July 2008, 01:17 pm
Time taken:	45 secs

[Click here to go back to the course](#)

1 Read the first paragraph in which Joll analyses why the outbreak of the First World War has been studied in such detail. What reasons does he give?

Answer: No idea

Feedback:

Maybe you are a bit confused by the question. It may be helpful to remember you are not being asked about the causes directly, but why the causes have been so extensively studied

[Moodle Docs for this page](#)

You are logged in as [Stuart Watt \(Logout\)](#)

Vorbereitung: Kompetenz: Open University: Open Comment



Universität Zürich



AA000: Combined Quiz

http://localhost/~stuart/moodle/mod/quiz/attempt.php?q=1

Canada Personal Meet-O-Matic Shopping Open Comment ARM

AA000: Combined Quiz

Open Comment Arts You are logged in as [Stuart Watt \(Logout\)](#)

[Moodle](#) ▶ [AA000](#) ▶ [Quizzes](#) ▶ [Combined Quiz](#) ▶ **Attempt 1** [Update this Quiz](#)

[Info](#) [Results](#) [Preview](#) [Edit](#)

Preview Combined Quiz

[Start again](#)

1 Read the first paragraph in which Joll analyses why the outbreak of the First World War has been studied in such detail. What reasons does he give?

Answer:

The First World War was a turning point in History, showing that lessons might not be learnt. **Recognising** the causes of the war also to some extent vindicated the huge loss of life.

[More help](#)

[Save without submitting](#) [Submit all and finish](#)

Vorbereitung: Kompetenz: Open University: Open Comment



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AA000: Combined Quiz

http://localhost/~stuart/moodle/mod/quiz/review.php?attempt=16

Canada Personal Meet-O-Matic Shopping Open Comment ARM

AA000: Combined Quiz

Open Comment Arts You are logged in as [Stuart Watt \(Logout\)](#)

[Moodle](#) ▶ [AA000](#) ▶ [Quizzes](#) ▶ [Combined Quiz](#) ▶ [Review](#) [Update this Quiz](#)

[Info](#) [Results](#) [Preview](#) [Edit](#)

[Start again](#)

Started on:	Thursday, 3 July 2008, 01:19 pm
Completed on:	Thursday, 3 July 2008, 01:19 pm
Time taken:	-

[Click here to go back to the course](#)

1 Read the first paragraph in which Joll analyses why the outbreak of the First World War has been studied in such detail. What reasons does he give?

Answer: The First World War was a turning point in History, showing that lessons might not be learnt. Recognising the causes of the war also to some extent vindicated the huge loss of life.

Feedback:

Well done on this submission

- This question does not ask about the causes directly, but why the causes have been so extensively studied. The issue of blame ought to form part of an answer to this question.
- This is absolutely right - what Joll is saying in technical terms, is that 1914 marked a turning point.
- You have done well here to use the term 'turning point', which is a technically accurate term within the discourse of the discipline.



Literaturhinweis

Diskussionsforum

Lee, R (2005) Using asynchronous discussion to support initial teacher education about English as an additional language in NALDIC Quarterly, 3.2
(<http://www.naldic.org.uk/ITTSEAL2/ite/Asynchronousdiscussion.cfm>)

Salmon, G. (2000) E-moderating - the key to teaching and learning online. Kogan Page London

Open Comment

Project from the Open University led by Dr. Denise Whitelock (mehr Informationen:
<http://kn.open.ac.uk/public/workspace.cfm?wpid=8194>)

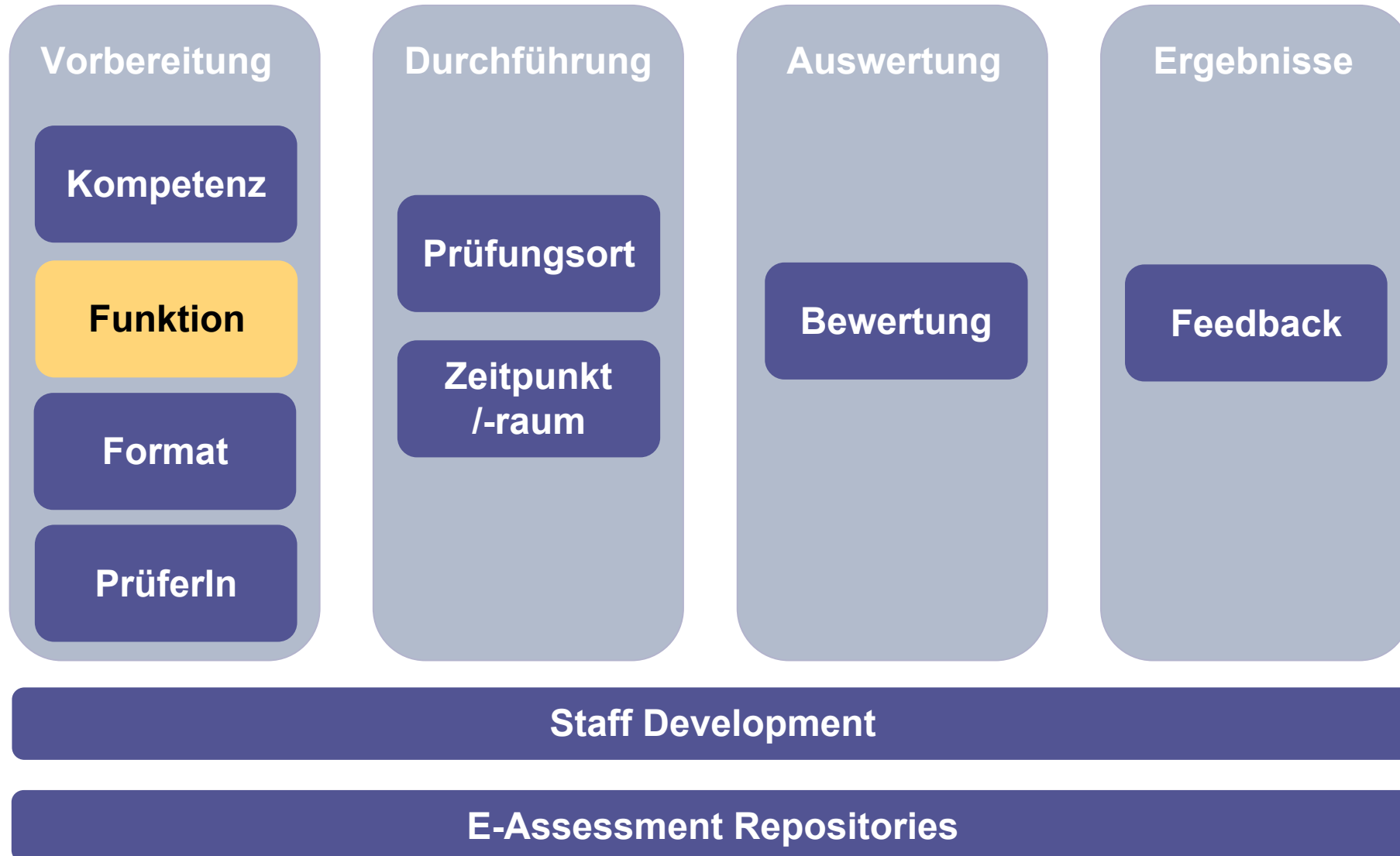
Online Microscope

Maughan, S. and Mackenzie, D.M. (2004) Bioscope: The Assessment of Process and Outcomes using the TRIAD System. IN: Proceedings of the 8th CAA Conference, Loughborough: Loughborough University, UK
(http://www.caaconference.com/pastConferences/2004/proceedings/Maughan_Mackenzie.pdf)

Mackenzie, D.M., O'Hare, D., Paul, C., Boyle, A., Edwards, D., Williams, D. & Wilkins, H. (2004) Assessment for Learning: the TRIADS Assessment of Learning Outcomes Project and the development of a pedagogically friendly computer based assessment system, p.22. In O'Hare, D & Mackenzie, D.M. (Eds) *Advances in Computer Aided Assessment*, SEDA Paper 116 pp11-24. Staff and Educational Development Association Ltd., Birmingham.

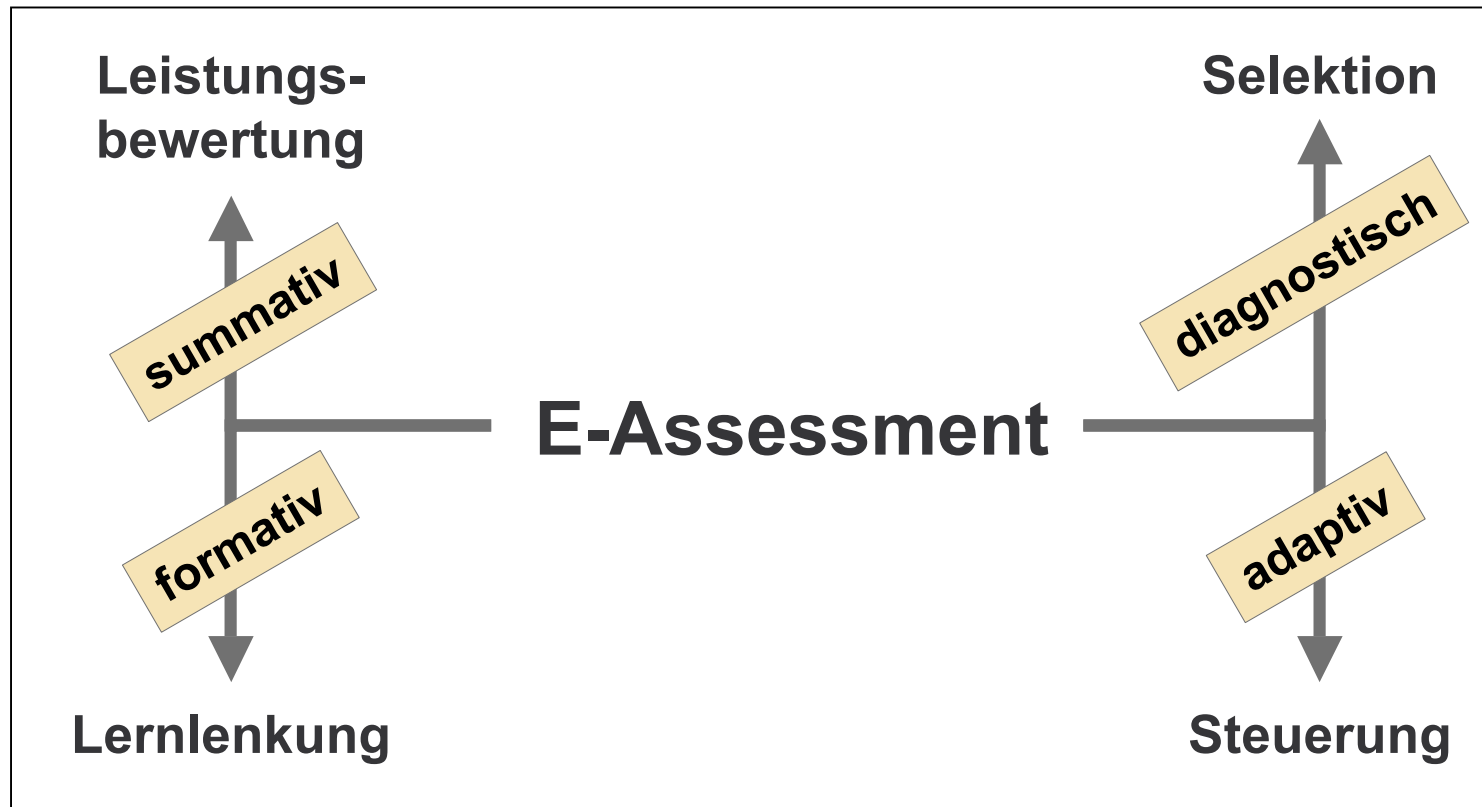


Zukunftsfelder E-Assessment



Vorbereitung: Funktion

Wie wird geprüft?



- Beispiel:
 - Adaptive testing: PTO Online (<http://www.pto.uzh.ch/>)

Vorbereitung: Funktion Universität Zürich: PTO Psychopathology Taught Online



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Lernumgebung/OLAT

Lehrveranstaltungen mit PTO

Projektportrait

Trailer: PTO in 5min



psychopathology

taught online

pto

Erscheinungsbilder psychischer Störungen

Vorbereitung: Funktion Universität Zürich: PTO Psychopathology Taught Online



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Kartenfeedback 8

PTO empfiehlt, als erstes die nachfolgenden Störungen nochmals zu repetieren (Sie gelangen über die Links direkt zu den Lerninhalten):

- Posttraumatische Belastungsstörung
- Organische wahnhafte [schizophreniforme] Störung
- Emotional instabile Persönlichkeitsstörung: Borderline-Typ
- Schizoaffektive Störung, gegenwärtig depressiv

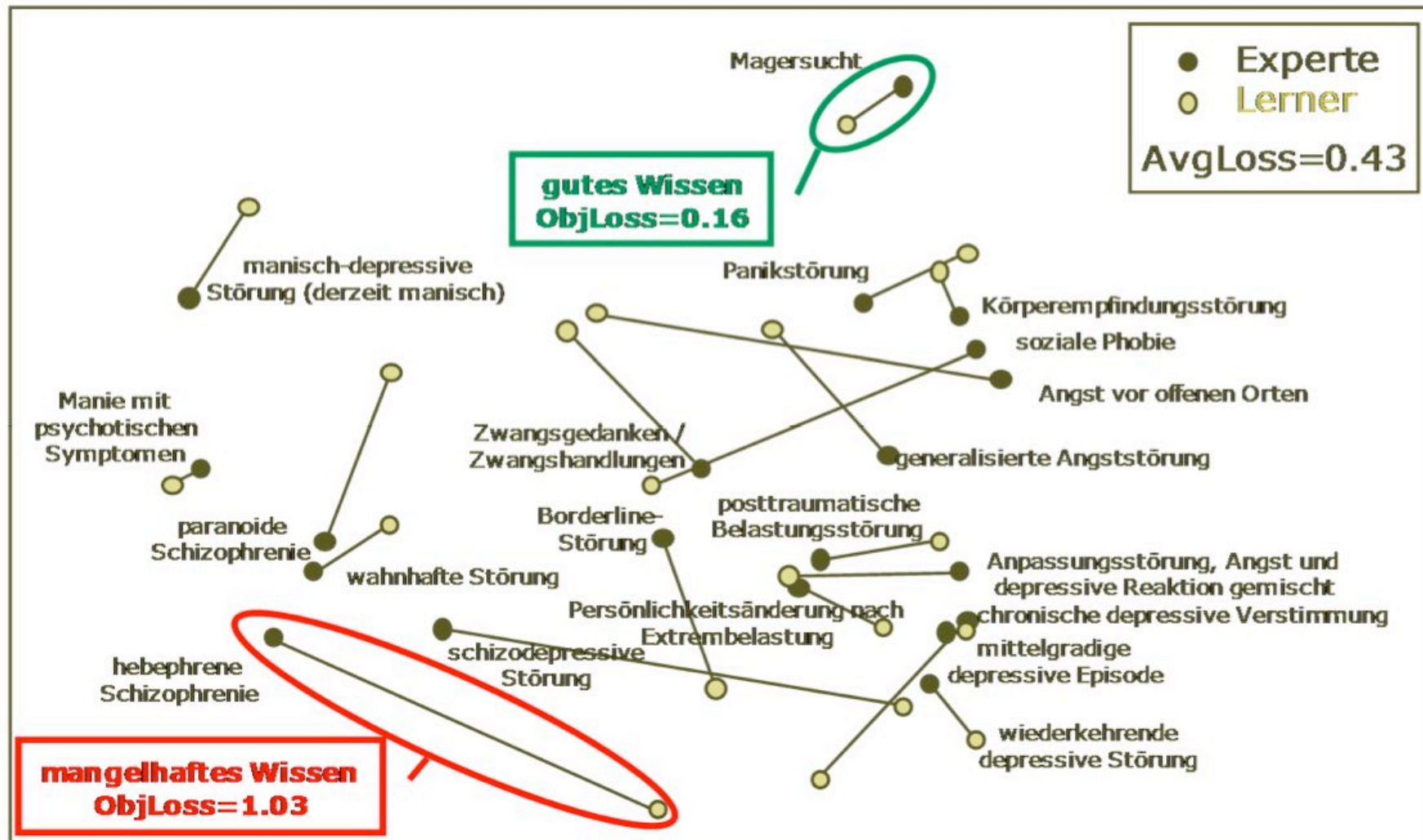
Hier blenden Sie eine Kurzinstruktion ein.]

Ausführlichere Erläuterungen, wie das Kartenfeedback zu interpretieren ist, gibt es bei den **Instruktionen zum Kartenfeedback**.

Vorbereitung: Funktion Universität Zürich: PTO Psychopathology Taught Online

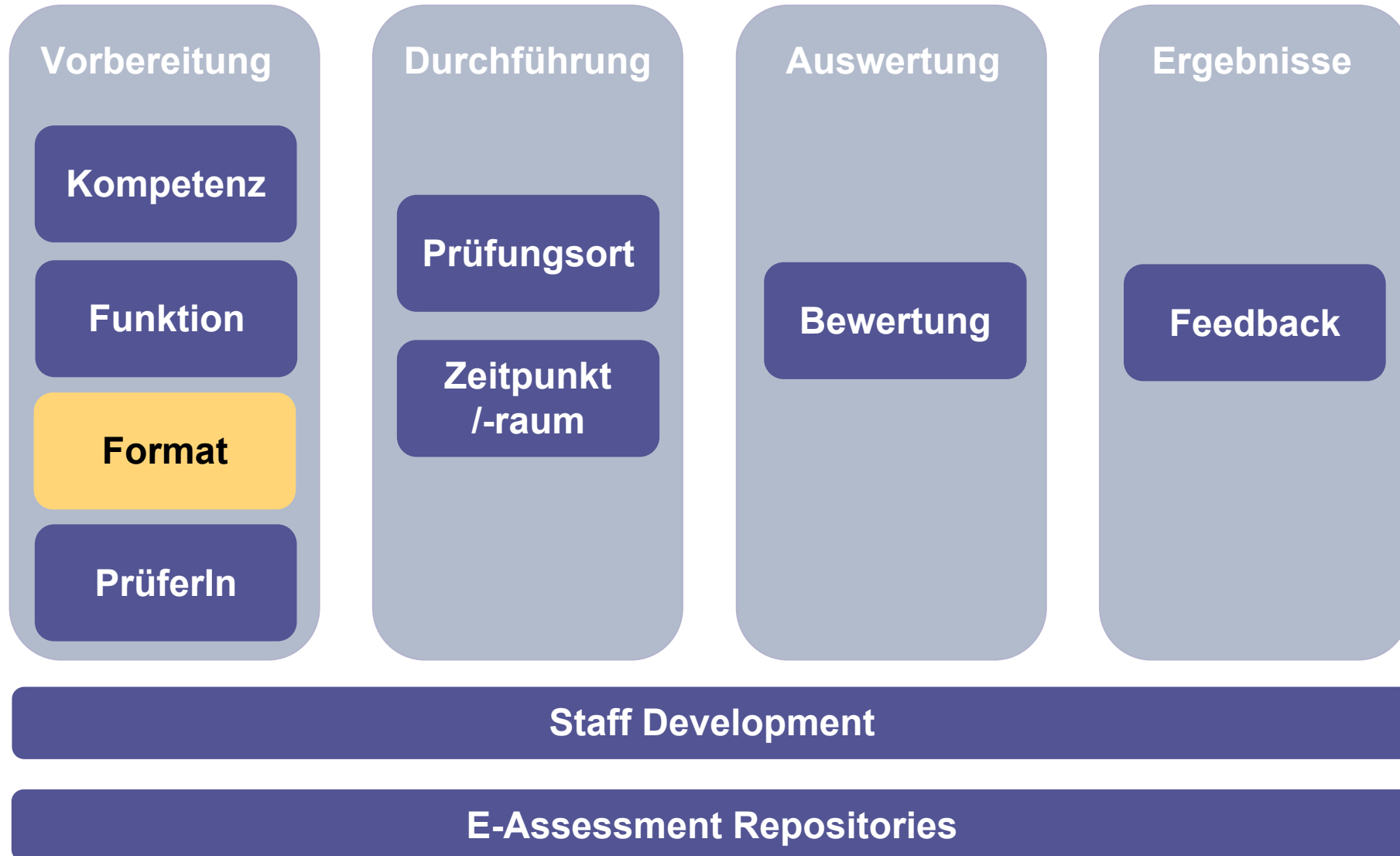


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Zukunftsfelder E-Assessment



Vorbereitung: Format

Welche Prüfungsform wird verwendet?

- Klassische Formen (Offene Fragen)
- E-Assessment (geschlossene + halboffene Fragen)
- Neue Formen
 - E-Portfolio
 - Neue Web 2.0 Formen (Wiki, Blog, Podcast)
 - Rollenspiele, Simulationen

Beispiele für Digital Storytelling on YouTube

- Did you know: <http://www.youtube.com/watch?v=K04o:>
- Pay attention: <http://www.youtube.com/watch?v=gT2E2F0DmyE&feature=related>



Literaturhinweis

Digital Storytelling



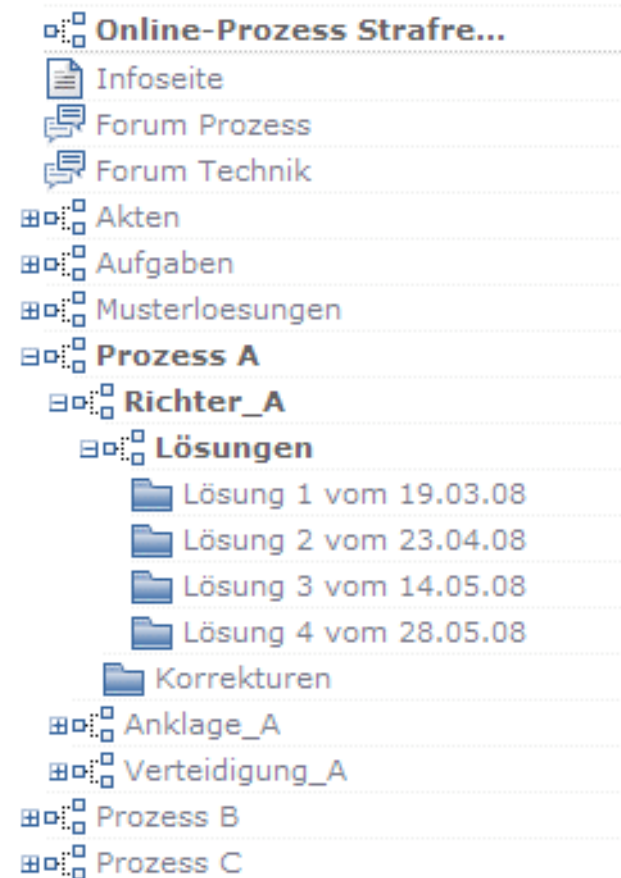
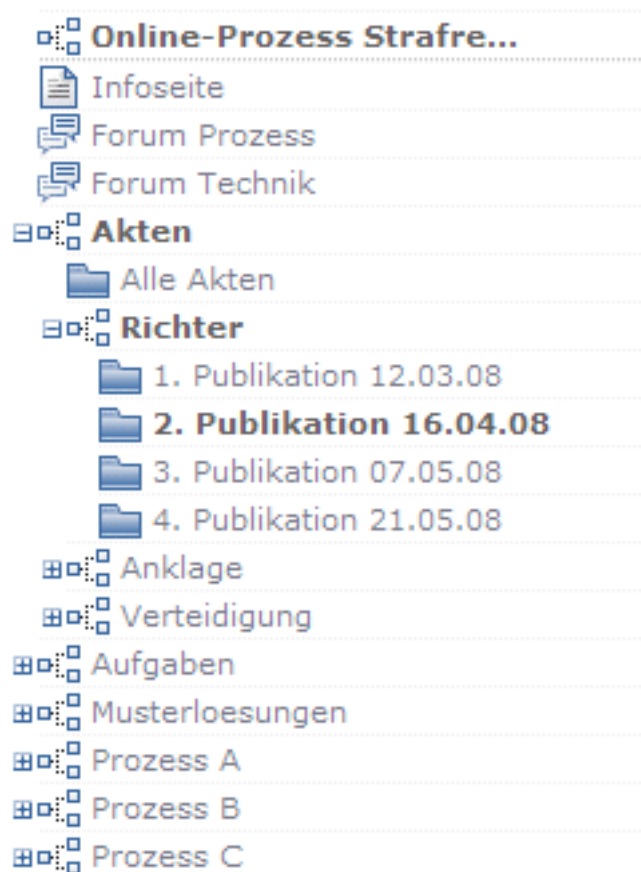
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- Alexander, B. and Levine, A (2008) Web 2.0 Storytelling: Emergence of a New Genre (<http://connect.educause.edu/Library/EDUCAUSE+Review/Web20StorytellingEmergenc/47444>)
- 7 Things you should know about ... Digital Storytelling, Educause Learning Initiative (<http://www.educause.edu/ir/library/pdf/ELI7021.pdf>)

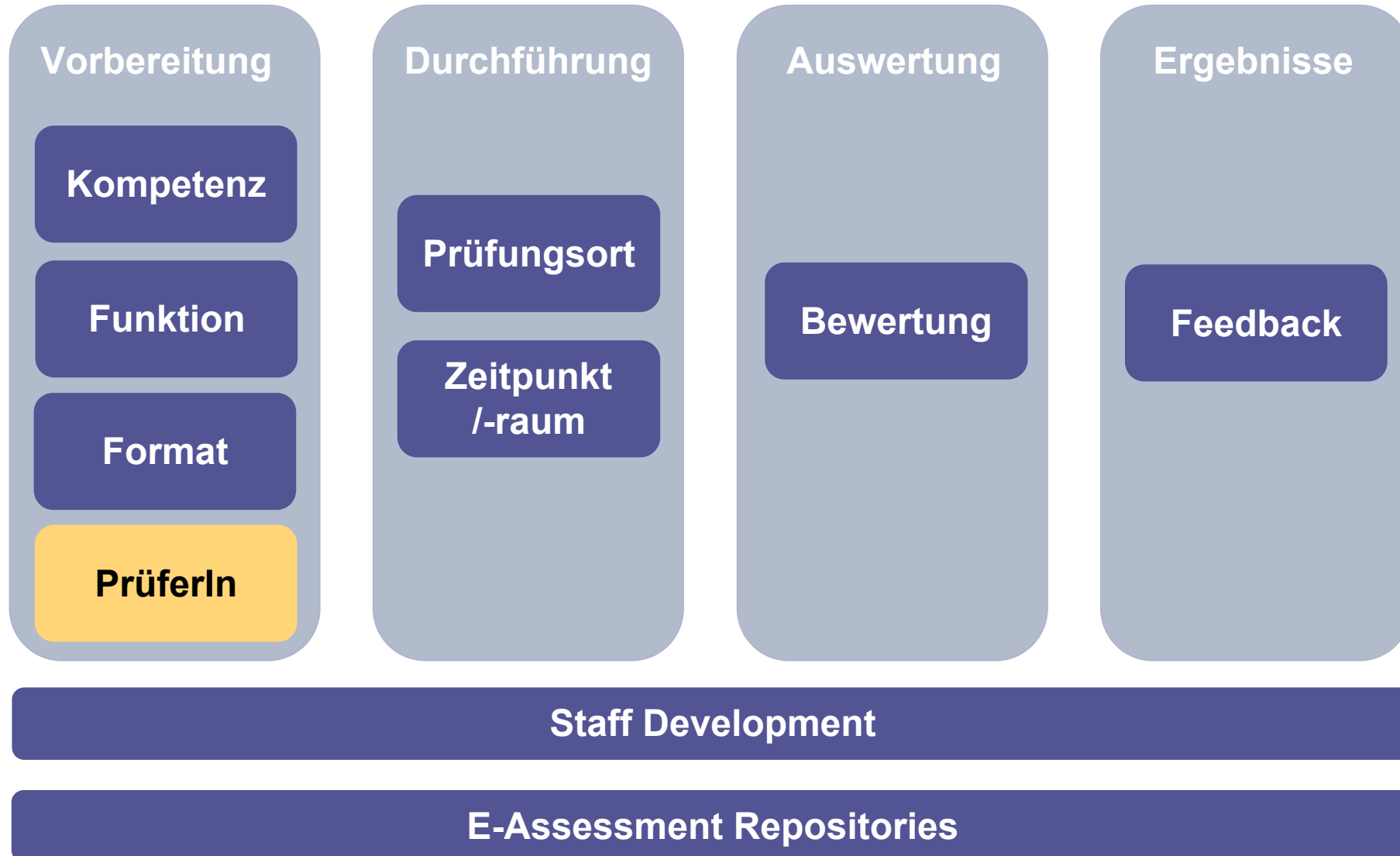


Interaktives Rollenspiel





Zukunftsfelder E-Assessment





Vorbereitung: PrüferIn - Authority



Wer bewertet?

- Self Assessment
- Peer Assessment
- Group Assessment
- Teacher Assessment



Beispiele Peer Assessment:

- WEBPA (Loughborough University)
<http://www.webpaproject.com/>
- University of Dundee
<http://www.dundee.ac.uk/learning/centre/ilt/selfpeer.htm>
- University of Glamorgan
(http://www.comp.glam.ac.uk/staff/pdavies/CAA%202008/phil_davies_2008.doc)

Vorbereitung: PrüferIn Loughborough University: Peer Assessment: WebPA



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WebPA Monroe Adria DEMONSTRATOR

You are in: home > Long running assessment

Web-PA OS Long running assessment

[← back to assessments list](#)

Please complete the assessment below. For each question *you must give a mark to each group member.*

You can leave this assessment at any time by simply clicking the *back to assessments list* link above, or choosing an option from the menu.

This is a long running assessment which will be reset daily.

Assessment Questions

1. CO-OPERATION
This covers attendance at meetings, contribution to meetings, carrying out of designated tasks, dealing with problems.
Score 0 : no help at all
Score 1 : quite poor
Score 2 : not as good as most of the group
Score 3 : about average for this group
Score 4 : better than most of the group
Score 5 : really excellent

	0	1	2	3	4	5
Yourself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dante, Hudson	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Illiana, Flores	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Students

- home
- my groups
- my assessments

Support

- help
- contact

logout

Technical Problem?

If you have a problem, find a bug or discover a technical problem in the system, [contact us](#) to report it!

Vorbereitung: PrüferIn Loughborough University: Peer Assessment: WebPA



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Web-PA OS Feedback Report

Demonstration

The following is based on your relative contribution in the group, measured from the self and peer assessment scores only and does not

Your strongest contribution within this project was rated by your group as:

ENTHUSIASM

This covers motivation, creativity and initiative during the project.

An area you may wish to develop is your contribution to:

CONTRIBUTION

This covers the overall effort put in by an individual during the Semester.

close



Vorbereitung: PrüferIn University of Glamorgan:



Phil Davies ...DS&EN ECAP PEER-Assessment

Readability Aimed at level of audience Personal Conclusions Referencing Research and Use of Web Content Explanations Examples Case Studies Overall Report Quality Introduction Definitions Report Presentation Structure

Go to Web Address

Web Address

PULL DOWN MENU ONLY ... DON'T TYPE HERE

References do not include copy & paste site

FREE TEXT COMMENTS

overall I think

MINIMUM OF 10 WEB REFERENCES

MARKS ALLOCATED

Research Shown and Referencing

14 /30

Explanations and Examples

12 /20

Readability (material presentation)

13 /20

Subjective opinions (including justifications) and future

8 /30

D Class Mark

47 /100

Positive
Negative

- Good explanations of
- Good knowledge shown in subject area
- Weel reasoned and supported arguments throughout
- Very interesting and informative
- I have learnt from reading your report

Investigate the development of Grid Computing, and assess its possible future impact within the commercial sector

Introduction and Definitions

These days we have computers, super computers, main frames and so on connected to the Internet, all working as one single computer, by making the electrical power independent of its source and where you get the power from. Grids available today but the dream is to get one or a P.P. ne systems, as will be discussed in the following

The differ

First of all, machines are compared to a Cluster, where the workload they have been asked for is no well justified work done on the machine. It gives access to the user that wants to use the resource and of the operations that are being asked by the various different types of machines, vendors, operating systems and network devices (Heterogeneous). A Grid is Dynamic by nature, while a Cluster is static by nature, and usually contains the same types of systems and vendors (Homogenous) (2) (3). The localisation of a Grid can be wan or a metropolitan networks, while Cluster is usually localised in a room or building (3). A Grid can contain a Cluster as a resource, which the Grid handles and maintains (2). It is important to know that a Grid is Dynamic and Heterogeneous

Comments – Both Positive and Negative in the various categories. Provides a Subjective Framework for Commenting & Marking

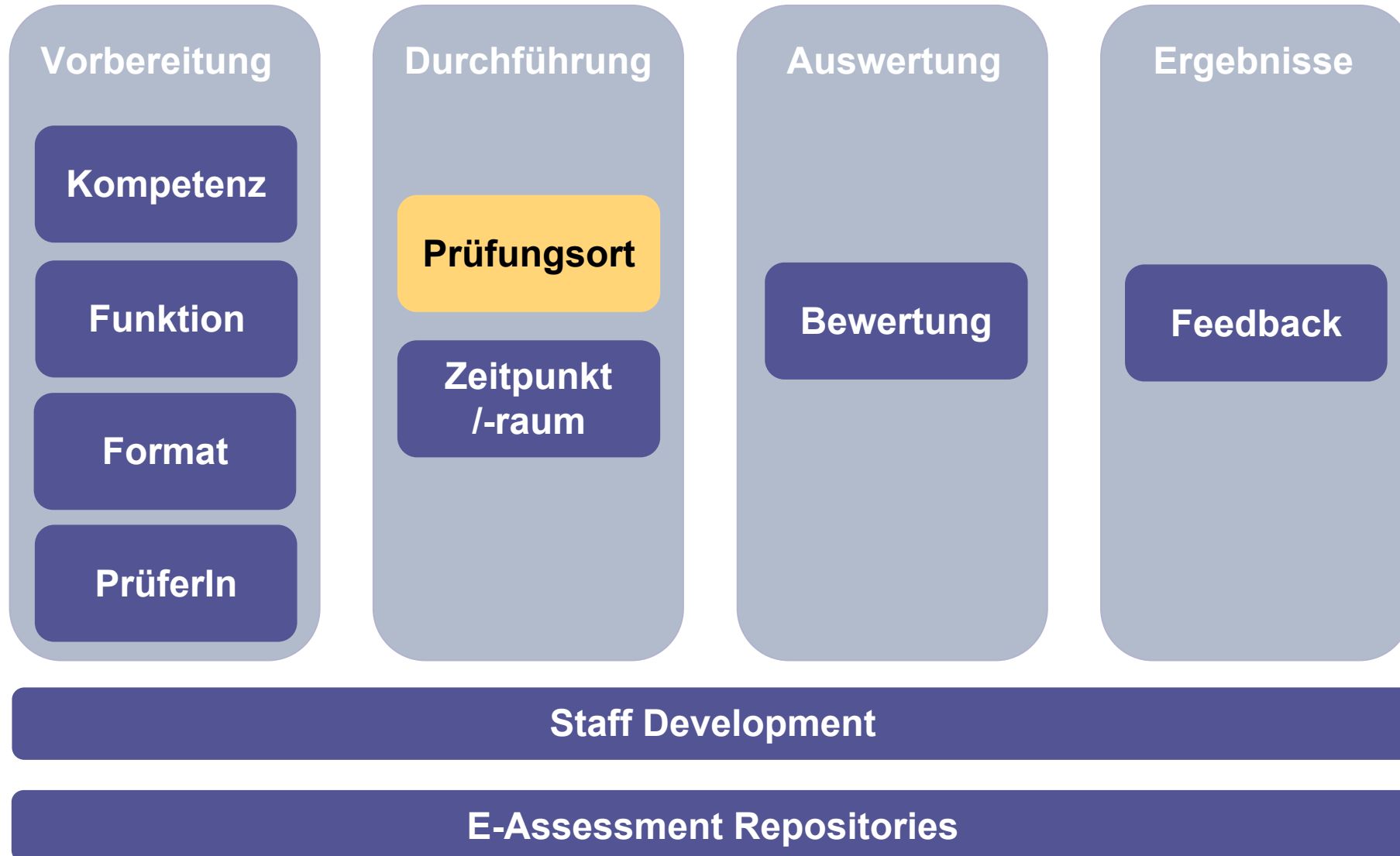
First Stage => Self Assess own Work

1

Second Stage (button on server) => Peer Assess 6 Essays



Zukunftsfelder E-Assessment



Durchführung: Prüfungsort

Wo wird «assessed»?

- On-campus vs. off-campus
- Supervised vs. unsupervised
- Static vs. mobile

Beispiele:

- Classroom-based Mobile Voting Systems
- Mobile Assessment mit PDA/Mobiles



Durchführung: Prüfungsort West Suffolk College



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- Innovativer Einsatz von E-Portfolios in der Aus- und Weiterbildung von Köchen
- Mobile Sammeln von Arbeitsproben
- Software von Paperfree Systems Ltd



Durchführung: Prüfungsort Mobile Assessment M-learning: Tribal CTAD



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M-Learning bietet Software an die für PDAs, Mobile Phones, Pocket PC's und das Internet genutzt werden können

Anwender sind u.a.:

- Healty for Life (Birmingham Core Skills Partnership and Birmingham Teenage Pregnancy Project)
- Maths4Life (finanziert von UK-Government Department for Children, Schools and Families)

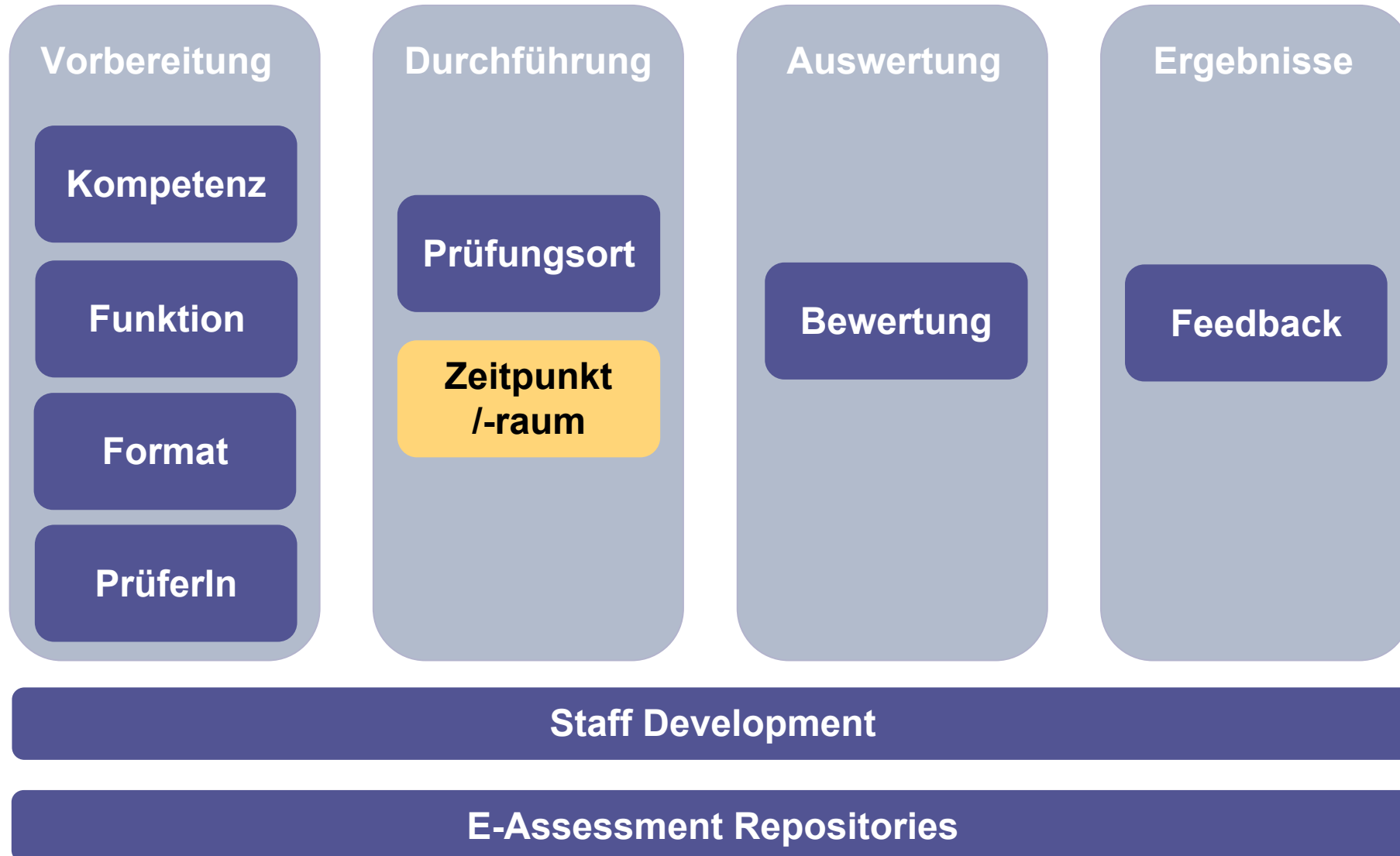
• Link:

<http://www.m-learning.org/>





Zukunftsfelder E-Assessment





Durchführung: Prüfungszeitraum

Wo wird «assessed»?

- Continuous vs einmal

Beispiel:

- Mikrobiologie
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Vortrag von Dr. Kurt Hanselmann am 6. Mai 2008 zum Thema: „E-Assessment in den Naturwissenschaften“ (<http://www.elc.uzh.ch/veranstaltungen/elforum.html>)

Home Gruppen Lernressourcen *BIO126 2008...

- *BIO126 2008_SS Di...
- Why microbiology
- Course description
- Enrolment
- Text book BBOM
- Course contents
- Reading suggestions
- Microbiology movies
- Self-testing 20%
- Self-studies 10%+30%
- Review questions
- Exam 31 March - 20%
- Exam 05 May - 20%
- Extra credits 3x5%
- My credit performanc...
- My current grade
- Questions and Answer...
- Contacts
- Course evaluation
- Course index

Diversity of Microorganisms

BIO 126
Optional Module // Base Curriculum // University of Zurich

WELCOME to the course
Diversity of Microorganisms – Vielfalt der Mikroorganismen

This course offers you a first insight into the diversity of microbiological topics, which span from food to health and from ecology to evolution. We intend to make you aware of a number of fascinating contents and will indicate to you present day research directions. Towards the end of the course you should be able to focus on a microbiological topic of your interest, search the literature for details and write a reliable case study.

We will employ supporting **learning and teaching technologies** which should help you to learn effectively and we would like to also promote skills that go beyond the purely scientific ones.

Via OLAT you will always have access to

- the **module contents**
- the **weekly self-tests**
- the **review questions**
- a number of **movies** on microbiological topics
- the **enrolment** into a **case study group** and the **keyword research** as well as
- the proper use and referencing of information collected from **internet lexica**.
- etc.

You will find out everything you need to know about **credit points**, the contents and organization of the **midterm exam** and the **final exam**, and on how you can submit questions and participate at answering them via the **discussion forum**.

The course concept requires that you actively participate in all aspects of the program for the entire duration of the semester, that you read the assigned chapters in the text book and that you acquire certain contents in a self-study mode. The **study plan** will guide you through the semester and it helps you to keep a good time management.

Please **adjust your browser configuration** such that you will be able to access the educational resources, which are available on OLAT.

The course includes

- lectures in which we will discuss **selected microbiological topics**,
- the **text book**, which explains terms and gives basic background information,
- the **assignments**, which define the book chapters for reading,
- the **self-test exercises** with which you can check your learning progress,
- the **case studies** on microbiological discoveries and topics which interest you most,
- the **data base research**, which serves to make you familiar with searching and evaluating techniques to screen and select the most reliable scientific literature and
- the preconditions which you learned in other courses during your studies, particularly in chemistry.

Further details to Bio-126 can be found in the study catalogue and in the **detailed description** on this OLAT course site.

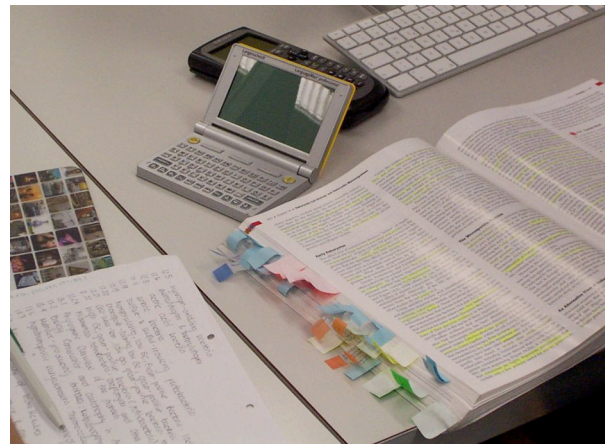
Enrolment
You first have to enrol for Bio126 via the official Biology Booking Tool, before you can enrol into a course working group in OLAT. **Enrolling** for Bio126 in OLAT is mandatory for all students and possible until the end of the second course week. Once all places are filled, your name will be put onto the waiting list from where it can move up as soon as places become available again. We ask you to cancel your enrolment in OLAT and in the official Biology Booking Tool if you decide to leave the course. After the first exam you can neither enrol in the course nor leave it; you will have to finish it.

Text book
Please get a copy of the text book: Madigan M.T. and J.M. Martinko: **Brock – Biology of Microorganisms**®, **BBOM, 11th Edition**, Pearson, Prentice Hall, 2006. This is the official text for the two optional courses Bio126 (2nd semester) and Bio146 (4th semester) as well as for Bio132 (3rd semester), Bio-284 "Interactions between bacteria in biofilms" and Bio-293 "Evolution and ecology of microorganisms" and a number of other microbiology courses offered in the advanced study section (5th and 6th semester). There are no scripts for these courses. The textbook may be purchased from the student book store at Irchel.

Durchführung: Prüfungszeitraum Universität Zürich: Microbiology Dr. Kurt Hanselmann



Universität Zürich

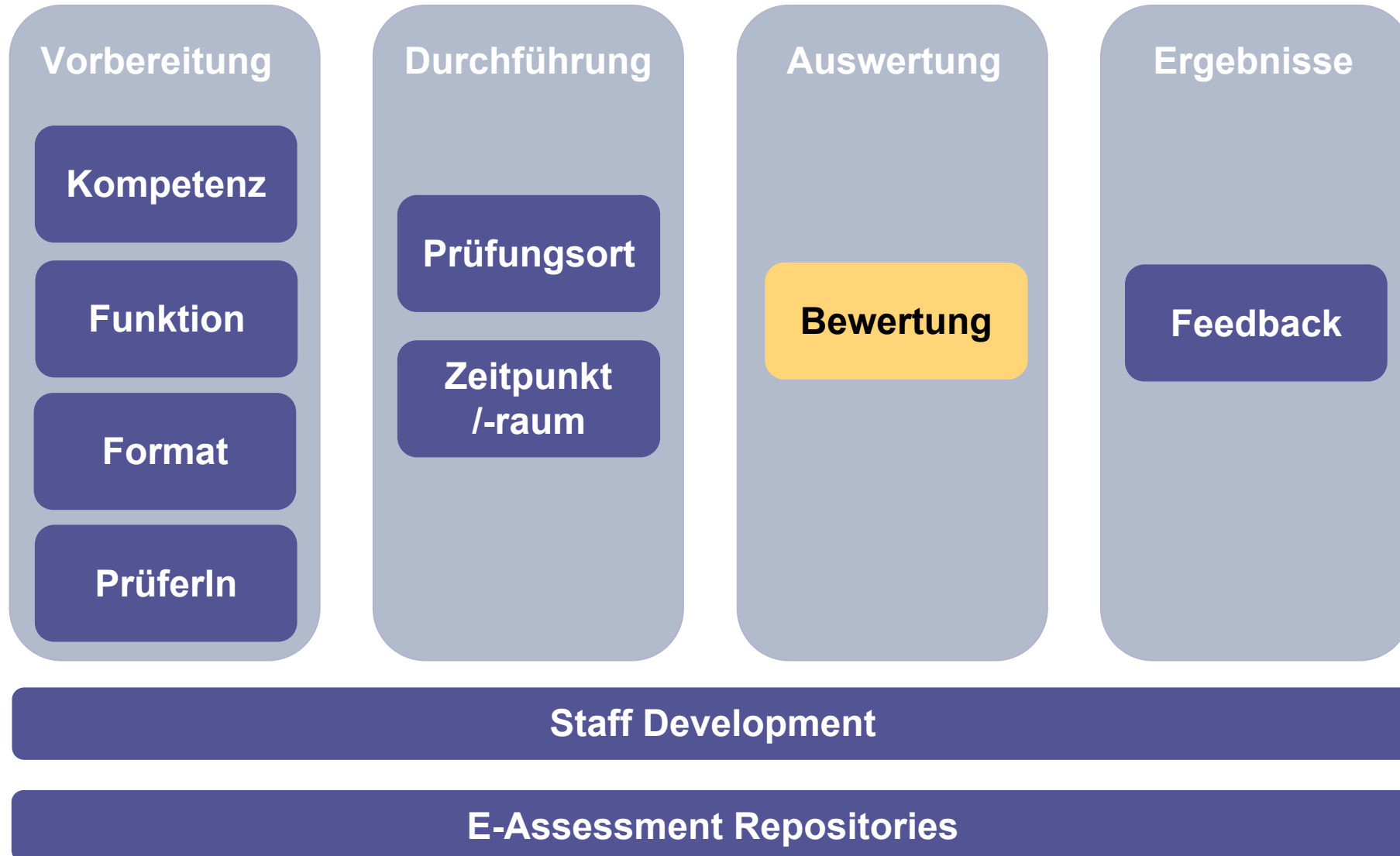


Prüfungsvielfalt:

- Self-Testing (20%)
10 Frageblöcke a 10 Fragen
- + Self-Study: Key Word Search (10%)
- + Self-Study: Case Study (20%)
- + E-Prüfung (20%)
- + E-Prüfung (20%) } OpenBook
- + Extra Credits (bis 5%)
für Einreichen zukünftiger
Prüfungsfragen



Zukunftsfelder E-Assessment

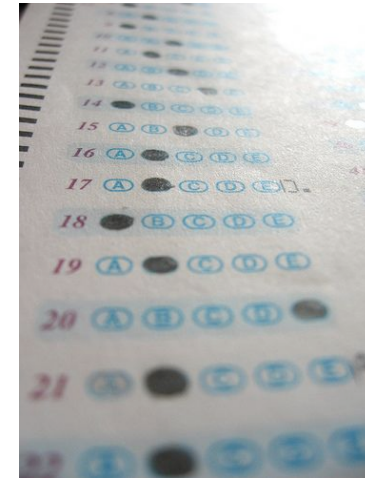


Auswertung: Bewertung



Wie wird bewertet?

- Manuell vs. automatisch
- Traditionell vs. innovative
- Confidence-based marking



Beispiele:

- Certainty-Based Marking @ University College London
Tony Gardner-Medwin
- Confidence-Based Marking @ University of Glamorgan
Phil Davies
- Confidence-Based Marking @ TU Graz



Literaturhinweis

- **Certainty-Based Marking @ University College London**
Tony Gardner-Medwin (<http://www.ucl.ac.uk/~ucgbarg/pubteach.htm>)
Gardner-Medwin AR (2006) Confidence-Based Marking - towards deeper learning and better exams In : Innovative Assessment in Higher Education. Ed.: Bryan C and Clegg K. Routledge, Taylor and Francis Group, London (<http://www.ucl.ac.uk/lapt/innovass6.doc>)
- **Confidence-Based Marking @ University of Glamorgan**
Phil Davies (<http://www.comp.glam.ac.uk/staff/pdavies/caa.htm>)
Davies, P (2005) The Continual Assessment of Confidence or Knowledge with Hidden MCQ?, IN: Proceedings of the 9th International CAA Conference.
(<http://www.caaconference.com/pastConferences/2005/proceedings/DaviesP1.pdf>)
- **Verwendung von Bewertungsrastern (Rubrics)**
House of E-Learning - Prüfungsraum Linkliste:
(<http://www.elc.uzh.ch/elgrundlagen/kursentwicklung/pruefungsraum/rubrics.html>)

Auswertung: Bewertung Confidence / Certainty Based Marking



Universität Zürich



- Anwendung an University College London (Medizin) und University of Glamorgan (IT) und neu bei der TU Graz (IT)
- Ansatzpunkt: Kritik an MC-Fragen - Ratefaktor
- Studierende müssen anzeigen wie «confident» sie bei der Beantwortung sind

Bewertungsskala

Glamorgan

confidence	Right	wrong
very	4	-2
fairly	2	-1
not	1	0

University College London

certainty	Right	wrong
High (c=3)	3	-6
Mid (c=2)	2	-2
Low (c=1)	1	0

Auswertung: Bewertung University College London: Tony Gardner-Medwin (Medizin)



Universität Zürich



Sect. 1 (24 question/s) UK Government Ministers

Identify from this list the cabinet ministers who have the jobs indicated:

Choose one of the following:

- | | | | |
|--|---|---------------------------------------|--------------------------------------|
| <input type="radio"/> Baroness Amos | <input type="radio"/> Des Browne | <input type="radio"/> Patricia Hewitt | <input type="radio"/> Ian McCartney |
| <input type="radio"/> Hilary Armstrong | <input type="radio"/> Gordon Brown | <input type="radio"/> Geoff Hoon | <input type="radio"/> David Miliband |
| <input type="radio"/> Margaret Beckett | <input type="radio"/> Charles Clarke | <input type="radio"/> John Hutton | <input type="radio"/> John Prescott |
| <input type="radio"/> Hilary Benn | <input type="radio"/> Alistair Darling | <input type="radio"/> Alan Johnson | <input type="radio"/> John Reid |
| <input type="radio"/> Tony Blair | <input type="radio"/> Lord Falconer of Thoroton | <input type="radio"/> Tessa Jowell | <input type="radio"/> Jack Straw |
| <input type="radio"/> David Blunkett | <input type="radio"/> Peter Hain | <input type="radio"/> Ruth Kelly | |

No Reply

Certainty:

C=1 (low)

C=2 (mid)

C=3 (high)

Revised 10/11/05. Please enter comments if there are errors!

Qu. 3: Who is Secretary of State for Wales?



(ukgov) TOTALS: Q's done=2, Marks=1 (50% correct, %A=48%, CBS=46% : [see explanation](#)) [T=13.

Next Question

Next Section

Index

View / Make Comments

Submit

Auswertung: Bewertung University of Glamorgan: Phil Davies (IT)



Universität Zürich



ON LINE CONFIDENCE TEST FOR SY214

SCORE

Question Number
1

Phil Davies

COUNTDOWN

In terms of DTE and DCE connections, a null MODEM link is used for

VERY CONFIDENT **FAIRLY CONFIDENT** **NOT CONFIDENT**

CORRECT CHOICE

[Yellow bar]

Auswertung: Bewertung University of Glamorgan Rubrics für Peer Assessment

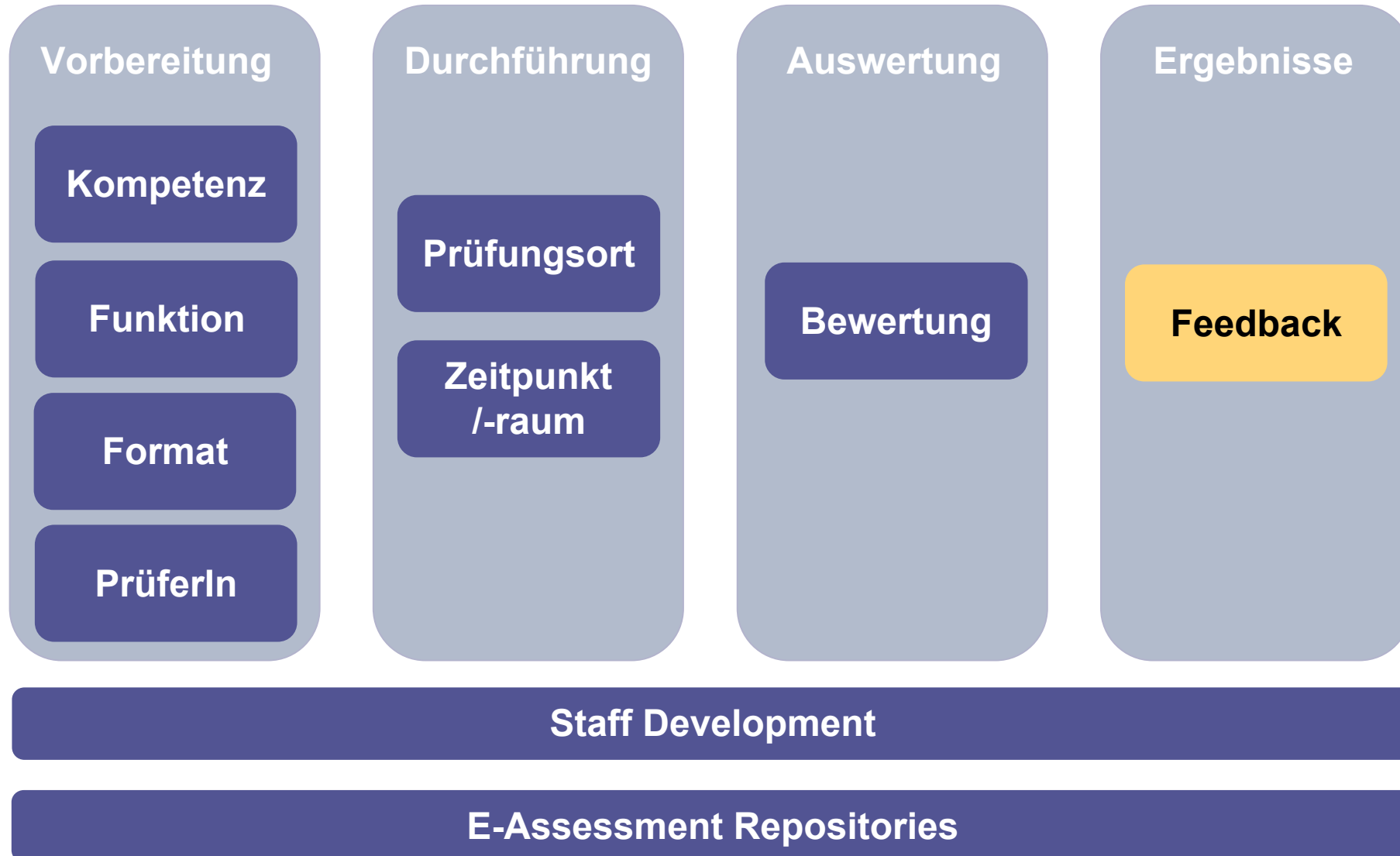


MSc E-Learning Digital Story Feedback Rubric

CATEGORY	GOOD 0	1	2	POOR 3
Point of View - Purpose	Establishes a purpose early on and maintains a clear focus throughout.	Establishes a purpose early on and maintains focus for most of the presentation.	There are a few lapses in focus, but the purpose is fairly clear.	It is difficult to figure out the purpose of the presentation.
Voice - Pacing	The pace (rhythm and voice punctuation) fits the story line and helps the audience really "get into" the story.	Occasionally speaks too fast or too slowly for the story line. The pacing (rhythm and voice punctuation) is relatively engaging for the audience.	Tries to use pacing (rhythm and voice punctuation), but it is often noticeable that the pacing does not fit the story line. Audience is not consistently engaged.	No attempt to match the pace of the storytelling to the story line or the audience.
Economy	The story is told with exactly the right amount of detail throughout. It does not seem too short nor does it seem too long.	The story composition is typically good, though it seems to drag somewhat OR need slightly more detail in one or two sections.	The story seems to need more editing. It is noticeably too long or too short in more than one section.	The story needs extensive editing. It is too long or too short to be interesting.
Grammar	Grammar and usage were correct (for the dialect chosen) and contributed to clarity, style and character development.	Grammar and usage were typically correct (for the dialect chosen) and errors did not detract from the story.	Grammar and usage were typically correct but errors detracted from story.	Repeated errors in grammar and usage distracted greatly from the story.
Academic Referencing	Numerous citations have been provided throughout the story in order to provide rigorous support for assumptions and points being made.	A number of citations have been used throughout the story, however some assumptions and/or points have not been clearly supported.	There have been few relevant citations included within the story to support assumptions/points being made.	Few if any relevant citations included within story to support assumptions/points being made
Use of Appropriate Multi-Media Content	The story is enhanced by the inclusion of appropriate multi-media resources throughout	Areas of the story are enhanced/supported by the inclusion of appropriate multi-media resources.	The inclusion of multi-media has provided only limited if any enhancement of the story	The inclusion or exclusion of multi-media resources has detracted from the overall quality of the story.



Zukunftsfelder E-Assessment



Ergebnisse: Feedback

Welches Feedback bekommen die Studierenden?

- Mündlich vs. schriftlich
- Prüfung vs. Frage

Schriftliche Feedback-Variationen

Bestanden/Nicht-Bestanden

+ Gesamtnote

++ Note/Prozent nach Themenschwerpunkt

+++ Aufgeschlüsselt nach Fragen

++++ Ausführliche Kommentar

+++++ mit Lernhinweisen





Literaturhinweise

- **REAP** - (<http://www.reap.ac.uk/>)
Nicol, D.J. & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199-218
(http://www.reap.ac.uk/public/Papers/DN_SHE_Final.pdf)
- **FAST**- (<http://www.open.ac.uk/fast/>)
Gibbs, G. & Simpson, C. (2004-5) Conditions under which assessment supports students' learning. *Learning and Teaching in Higher Education*, 1 (1), 3-31.
(<http://www.open.ac.uk/fast/pdfs/Gibbs%20and%20Simpson%202004-05.pdf>)
- **OpenMark** - E-Assessment System using von der Open University in Moodle (<http://www.open.ac.uk/openmarkexamples/>) und (<http://labspace.open.ac.uk/course/view.php?id=3484>)

Ergebnisse: Feedback

Open University: OpenMark



Universität Zürich



Are you ready for Level 1 Science? (S104 test) - Question 12 - Microsoft Internet Explorer provided by The Open University I.E.

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Stop Local intranet

Address <https://students.open.ac.uk/openmark/science.ayrfl1.s104/> Go Links

Are you ready for Level 1 Science? (S104 test)

Display options Help

Your answers End test

Question 12 (of 33)

Work out $\frac{1}{3} + \frac{1}{5}$, entering your answer as a fraction using the boxes provided.

$$\frac{1}{3} + \frac{1}{5} = \frac{\text{2}}{\text{7}}$$

Check

Your answer is incorrect.

Try again

Done Local intranet

Ergebnisse: Feedback

Open University: OpenMark



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Are you ready for Level 1 Science? (S104 test) - Question 12 - Microsoft Internet Explorer provided by The Open University I.E.

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Stop Local intranet

Address <https://students.open.ac.uk/openmark/science.ayrf1.s104/> Go Links

Are you ready for Level 1 Science? (S104 test)

Display options Help

Your answers End test

Question 12 (of 33)

Work out $\frac{1}{3} + \frac{1}{5}$, entering your answer as a fraction using the boxes provided.

$$\frac{1}{3} + \frac{1}{5} = \frac{1}{15}$$

Check

Your answer is still incorrect.

You appear to have multiplied the two fractions rather than adding $\frac{1}{5}$ and $\frac{1}{3}$. In order to add or subtract two fractions, it is necessary for them both to have the same denominator (bottom line) i.e. for them to share a 'common denominator'.

Try again

Done Local intranet

Ergebnisse: Feedback

Open University: OpenMark



Universität Zürich



Are you ready for Level 1 Science? (S104 test) - Question 12 - Microsoft Internet Explorer provided by The Open University I.E.

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Stop Local intranet

Address <https://students.open.ac.uk/openmark/science.ayrf1.s104/> Go Links

Are you ready for Level 1 Science? (S104 test)

Display options Help

Your answers End test

Question 12 (of 33)

Work out $\frac{1}{3} + \frac{1}{5}$, entering your answer as a fraction using the boxes provided.

$\frac{1}{3} + \frac{1}{5} = \frac{8}{15}$

Check

Your answer is correct.

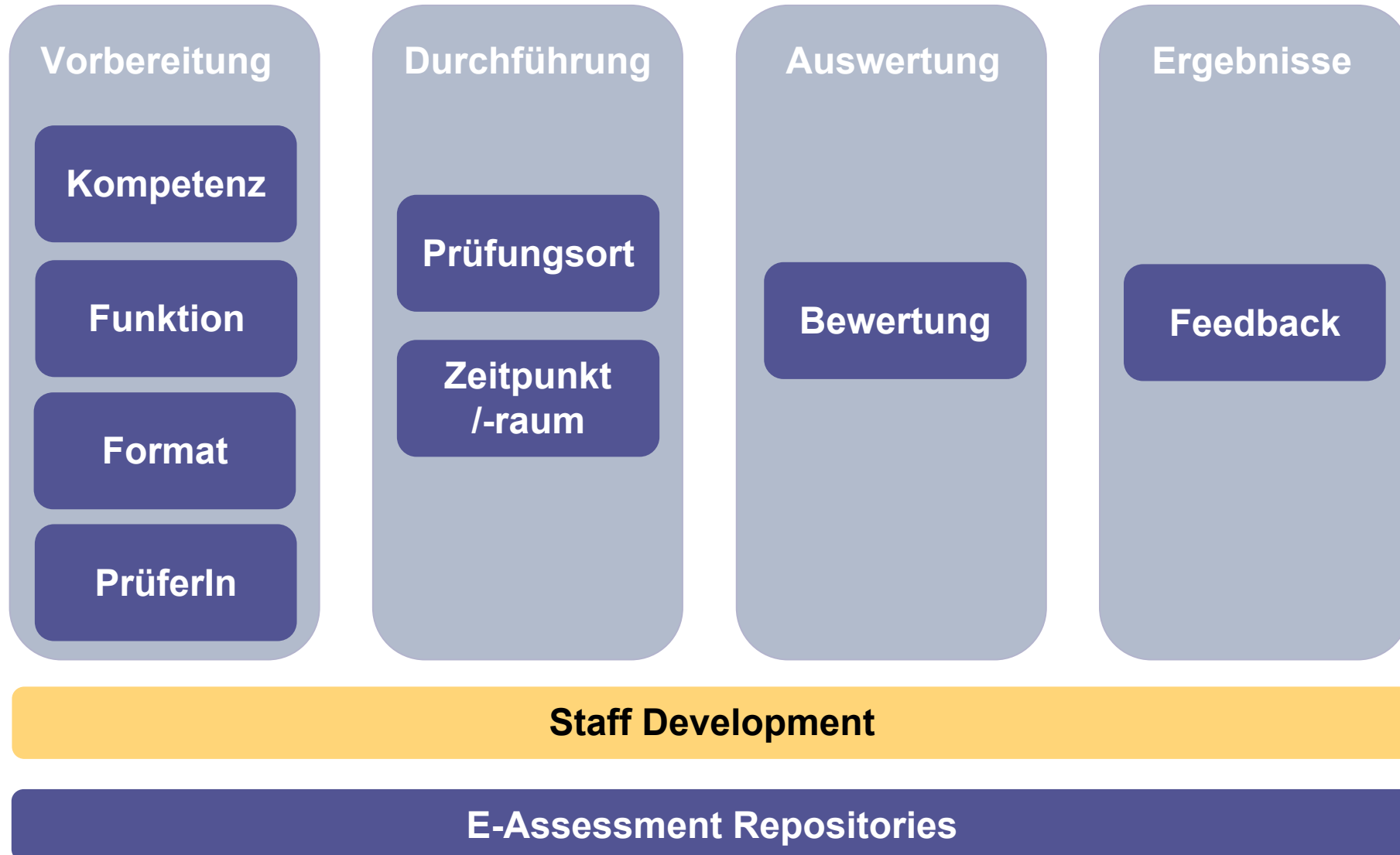
$$\frac{1}{3} + \frac{1}{5} = \frac{5}{3 \times 5} + \frac{3}{5 \times 3} = \frac{5+3}{3 \times 5} = \frac{8}{15}$$

Next

Done Local intranet



Zukunftsfelder E-Assessment





Staff Development

Wie werden die Dozierenden unterstützt?

- Kurse
- Tools



Beispiele

- OpenMentor (Open University)
- Online Kurse
(University of Dundee & Leeds Metropolitan University)



Staff Development Widgets: Open Mentor

Welcome to Open Mentor - View comments analysis for individual courses - Tiscali 10.0

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites IMAP server windows Search Web PageRank 79 blocked AutoFill Options IMAP server windows

Address http://localhost:8080/openmentor/report_courses.jsp Go Links

Open Mentor Welcome to Open Mentor

You're signed in as OM User [Sign out](#)

Options

- [Open Mentor Home](#)
- [Administration](#)
- [Submit assignment](#)
- ▶ [View Reports](#)
- [Help](#)
- [Sign out](#)
- [Sign out](#)

You're here: [OpenMentor](#) >> [View reports](#) >> Comments analysis

OpenMentor comment analysis - for individual courses

This page shows details of how each course assignment's comments have been analysed. If you would like to see further detail of the analysis, please click on the bar, pie or table chart links.

[View Evidence](#)

[\[Bar chart\]](#)
[\[Pie chart\]](#)
[\[Simple table\]](#)

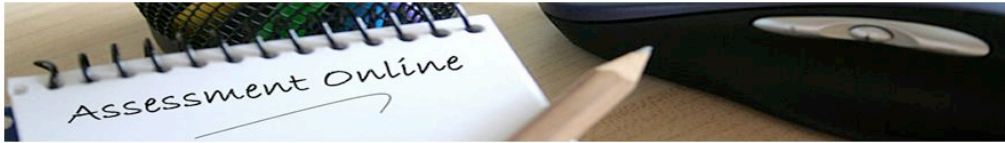
The important features to be looking for in the graph are the size of the blue bars above and below the zero line. If there is a block below the line for a given category, for example category A, this means that not enough praise was given to the student on the assignment. If there is a block above the line then too many comments have been given in this category for the mark awarded. For example, if there is a large block above the line in category D, then too many negative comments have been made on the assignment.

OpenMentor clustered chart

Category	Ideal (%)	Actual (%)
A	25	34
B	34	18
C	28	16
D	13	30

Close this window

Local intranet



Assessment Online

Semester 1 (2008/09): 20/10/08 – 21/11/08

Assessment Online is the award winning staff development course run by the Learning Centre which covers both the practical and theoretical aspects of presenting assessments online. Delivered entirely online via My Dundee (Blackboard), the course will examine issues surrounding effective online assessment selection and design, and will introduce participants to a range of online assessment tools including Questionmark Perception. The course is accredited by the School of Education, Social Work and Community Education at 10 SCOTCAT (Level 11) and may be selected as one of the third module electives for the Postgraduate Certificate in Teaching in Higher Education (PgCertHE).

Participants must be able to dedicate between 4–6 hours per week to online study (depending on experience) with some additional offline study in order to achieve the course learning outcomes.

The *Assessment Online* course is also open to staff from other universities and has recently included participants from Aston University, University College London, Glasgow Caledonian University, The Robert Gordon University and The University of Aberdeen. A course fee of £140 is chargeable to all external participants if they wish to claim the course credit. Enrolment details are located at the bottom of the page.

Course Content

- Week 1. Principles of Assessment
- Week 2. Online Assessment Selection and Design
- Week 3. Self, Peer and Reflective Assessment
- Week 4. Introduction to Questionmark Perception
- Week 5. Future Directions in Online Assessment

Closing Session (Face-to-face closing session – attendance optional).

Course starts 20th October 2008. To enrol please email Morag Pollard: m.i.pollard@dundee.ac.uk

**Napier University &
Leeds Metropolitan University**
Surf's Up
Student Assessment using Rich
Feedback

University of Dundee Assessment Online - 6-wöchiger Kurs zum Thema E-Assessment mit Questionmark Perception

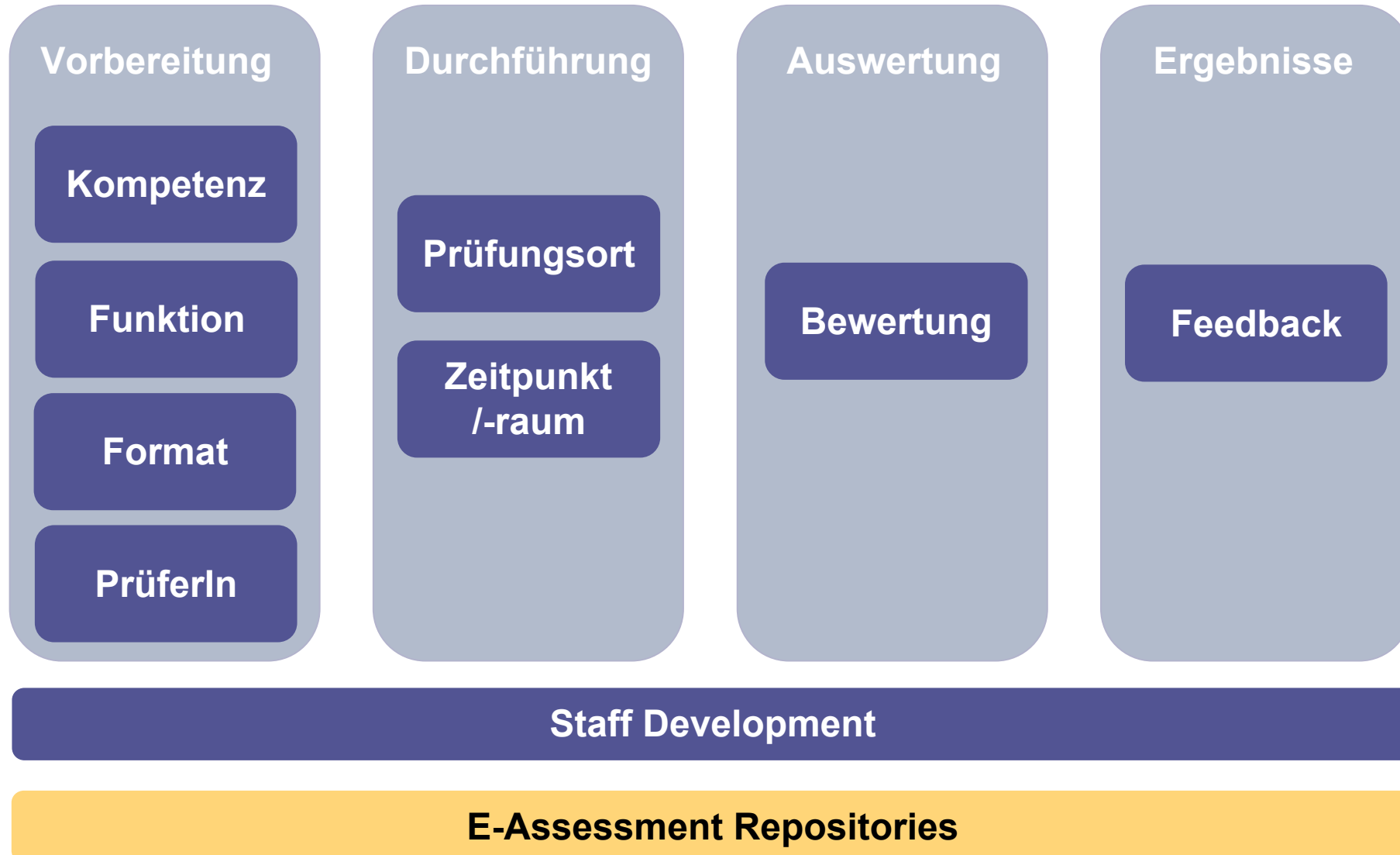
Surf's Up

Student assessment Using Rich Feedback

 <u>Start Here</u> Weather Check	 <u>Monday</u> On Board	 <u>Tuesday</u> Finding Your Feet
 <u>Wednesday</u> Balancing Act	 <u>Thursday</u> Riding the Wave	 <u>Friday</u> Surf's Up
 <u>Life Guards</u>	 <u>Resources</u>	



Zukunftsfelder E-Assessment





E-Assessment Repositories

Wie werden Fragen weiterverwendet werden?

- Fragenpools
- Reusable assessment objects



Beispiele

- COLA Project
- SOLAR Project
- University of Portsmouth (Dr. Michael McCabe)

E-Assessment Repositories: COLA Projekt (COLEG On-Line Project)



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COLEG

- Projekt der Vereinigung - Scottish Colleges Open Learning Exchange Group
- Projekt zur Förderung der Benutzung vor virtuellen Lernumgebung
- LMS:
 - 2005: Blackboard, Granada Learnwise, Teknical's Virtual Campus and WebCT
 - 2008: Moodle
- Fragenpool:
- 2005: über formative 250 E-Assessments mit bis zu 20 Fragen
- 2008: über 450 Assessments

E-Assessment Repositories: COLA Projekt (COLEG On-Line Project)



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Induction

Name: David Archibald

Start time: February 24, 2006 10:56am

Time allowed: 15 minutes

Number of questions: 6

[Finish](#)

[Help](#)

Question 1: (1.00 points)

Which of the following could result from induction not being carried out for new employees?

- a. Mistakes
- b. High Morale
- c. Lack of teamwork
- d. Loss of production
- e. High reputation
- f. Accidents

[Save answer](#)

[Next Question](#)

[Finish](#)

Time Remaining

14 : 43 (min:sec)

Question Status

Unanswered

Answered

Answer not saved

1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6				
<input type="radio"/>				

E-Assessment Repositories: COLA Projekt (COLEG On-Line Project)



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Sie sind nicht angemeldet. ([Login](#))

COLEG

COLEG ► Array

Kursbereiche: ▼

Kurse	
Art & Design	
Business, Management & Administration	
Care	
Computing & IT	
Construction & Engineering	
Core Skills	
English & Communication	
ESOL	
Hairdressing & Beauty Therapy	
Hospitality	
Languages	
Maths & Numeracy	
Performing Arts	
Science	
Social Science	
Sport & Leisure	
Travel & Tourism	

Kurse suchen:

COLEG ► [Kursbereiche](#) ► COLEG OnLine Assessments (COLA)

E-Assessment Repositories: SOLAR Project



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Das Solar Project ist eine Initiative der SQA (Scottish Qualification Authority) um „automatically marked summative assessment“ Schottischen Berufsschulen (Further Education Colleges) bereitzustellen. Es ist ein „Repository“ für Prüfungen, die die Colleges für andere Benutzer zur Verfügung stellen.

Das SOLAR Project ist ein erster gelungener Versuch mit einem Repository und wird von 30 Colleges mehr und weniger genutzt wird.

Link: <http://www.sqasolar.org.uk/mini/27322.html>

E-Assessment Repositories: University of Portsmouth Reusable Assessment Objects

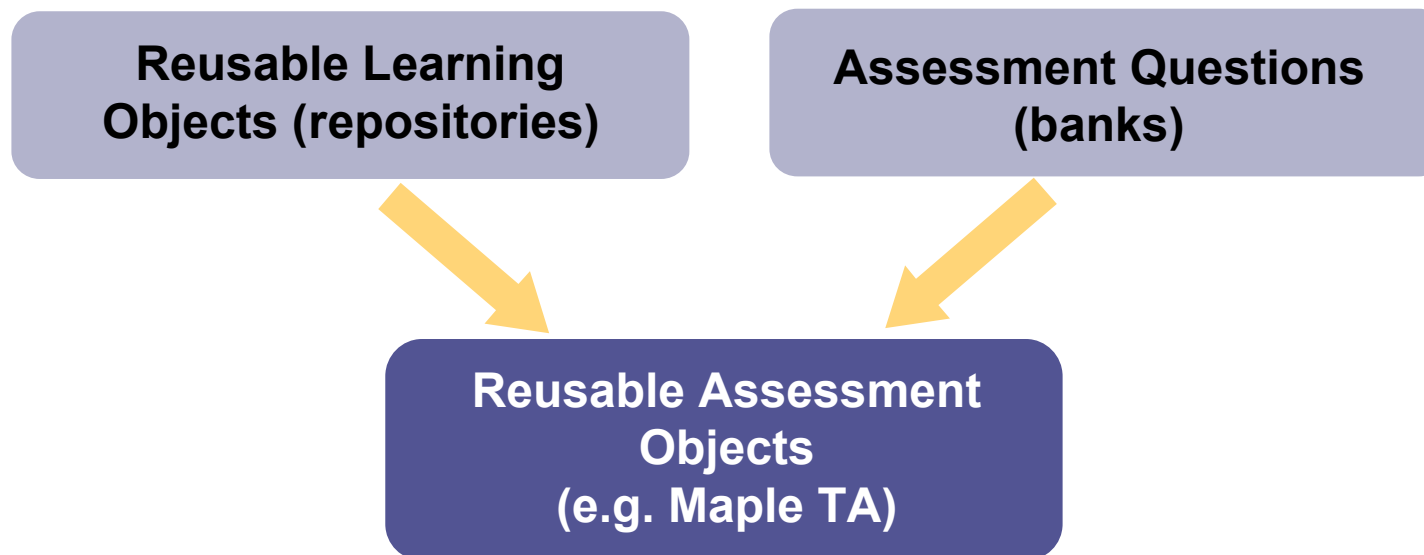


Universität Zürich



Probleme mit Fragenpools:

- Grosse Anzahl von Fragen notwendig
- Unterschiedliche Anforderungen für summative und formative Einsatz (z.B. Sicherheitsansprüche, Feedback)



E-Assessment Repositories: University of Portsmouth Reusable Assessment Objects



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Multi-Questions

A multi-question is a computer generated questions with random parameters (data) and algorithms (rules)

- What can be randomised? Not just numbers
 - Characters, symbols, words, text, lists, sets, tables, ...
 - Graphs, diagrams, pictures, videos, animations, sounds, ...
 - Algebraic formulae, equations ...
- Where can randoms appear? Not just questions
 - Questions: stem, keys, distractors, choices, answers
 - Feedback, solutions, hints, help



E-Assessment Repositories: University of Portsmouth Reusable Assessment Objects



Universität Zürich

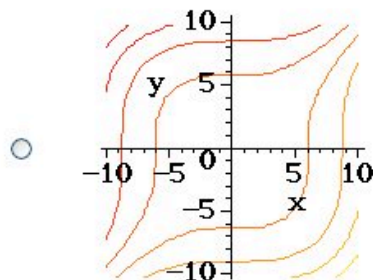
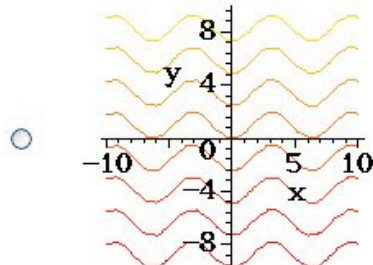


Question 8: (1 point)

Learning Objective - be able to identify the contour plot for a given scalar field

Which contour plot represents the scalar field

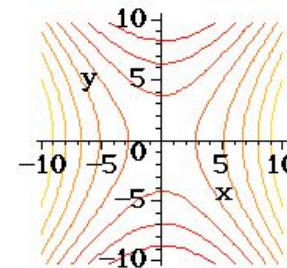
$$f = f(x, y) = \sin(x) + y^2$$



Question 9: (1 point)

Learning Objective - be able to identify the scalar field which generates a given contour plot

Which scalar field has the contour plot shown below:



- $-27 - 77y^2$
- $41x^2 - 27y^2$
- $19x^2 + 45y^2$
- $30y + 5y^2$
- $32 + 85y$
- $-32x + 52xy$
- $6x^2 + 34xy$
- none of these



Future of E-Assessment





Universität Zürich



Fragen?

Cornelia Rüdel

cornelia.ruedel@access.uzh.ch

Blog: <http://forschung.pruefung.net/>

E-Assessment

Blog zu computergestützten Prüfungen und Online-Prüfungen