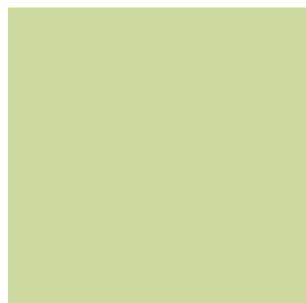
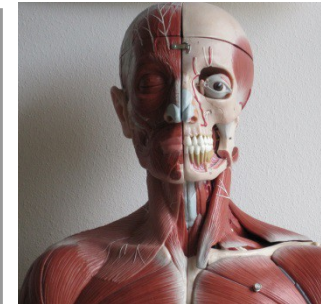
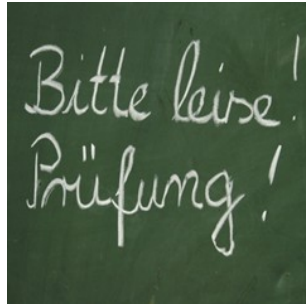


Trends und Standards bei der Überprüfung praktischer Fertigkeiten

Claudia Kiessling

Lehrstuhl für Didaktik und Ausbildungsforschung in der Medizin
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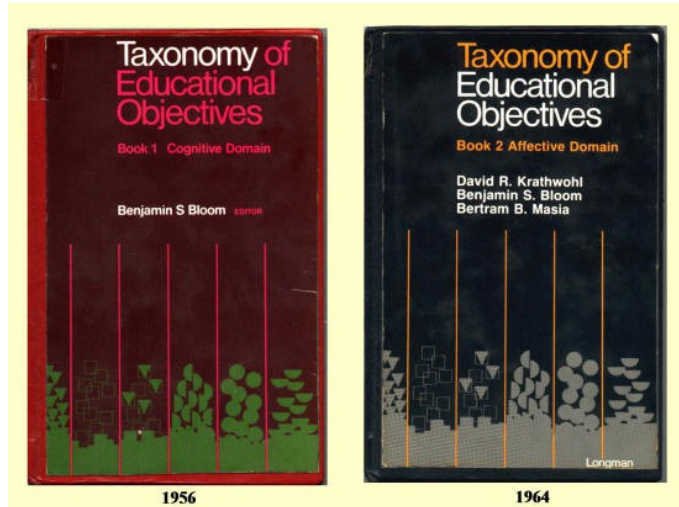


Gliederung

1. Kompetenzorientierung von Studium und Lehre
2. Kompetenzorientiertes Prüfen?
3. Prüfungsformate
 - (Beobachtung von Verhalten in simulierten Situationen)
 - Beobachtung von Verhalten in realen Situationen
 - „Single event measures“
 - „Global performance measures“
1. Relevanz für die zahnmedizinische Ausbildung?



Kompetenzorientierung in Studium und Lehre



1999



AMEE Guide No. 14: Outcome-based education: Part 1—An introduction to outcome-based education

R. M. HARDEN*, J. R. CROSBY & M. H. DAVIS
Centre for Medical Education, Tav Park House, Dundee, UK

Medical Teacher, Vol. 21, No. 1, 1999



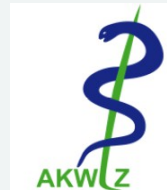
NKLM & NKLZ

Zahn-/Ärztliche Ausbildungsziele definieren:
Nationaler Kompetenzbasierter
Lernzielkatalog Medizin & Zahnmedizin



MEDIZINISCHER
FAKULTÄTENTAG

VHZMK
DGZMK



Was sind „Kompetenzen“?

Kompetenzen sind „die bei Individuen verfügbaren oder durch sie erlernbaren **kognitiven Fähigkeiten** und **Fertigkeiten**, um bestimmte **Probleme zu lösen**, sowie die damit verbundenen motivationalen, volitionalen und sozialen **Bereitschaften** und Fähigkeiten, um die **Problemlösungen in variablen Situationen** erfolgreich und verantwortungsvoll **nutzen** zu können“. (Weinert 2001, S. 27 f.)



Kompetenzorientiertes Prüfen?



Gütekriterien für ein faires Prüfungssystem

Testgütekriterien

- Objektivität
- Reliabilität
- Validität
- +
- Educational Impact
- Credibility
- Feasibility

Lerntheoretische Prinzipien

- Kongruenz mit Lernzielen
- Kongruenz mit Unterricht
- Kontext des Berufsalltags
- Summativ *und* formativ
- Direkte Informationen (z.B. Beobachtung)
- Mehrere Messzeitpunkte
- Verschiedene Methoden
- **Feedback & Reflexion!!!!**

Feedback

“Feedback can change physicians’ clinical performance when provided **systematically over multiple years** by an authoritative [verbindlich, zuverlässlich C.K.], **credible source**.” (Veloski et al., 2006)

“The mistake I was making was seeing feedback as something teachers provided to students - they typically did not (...). It was only when I discovered that feedback was most powerful when it is **from the student to the teacher** that I started to understand it better. When teachers seek (...) feedback from students as to what students know, what they understand, where they make errors, (...), when they are not engaged - then teaching and learning can be synchronized and powerful. Feedback to teachers helps make learning visible.” (Hattie, Visible learning, 2008)

Assessment OF learning



Assessment FOR learning

Kompetenzbasiertes Prüfen?

... kognitiven Fähigkeiten und Fertigkeiten, um bestimmte Probleme zu lösen, sowie die damit verbundenen (...) Bereitschaften und Fähigkeiten, um die Problemlösungen in variablen Situationen erfolgreich und verantwortungsvoll nutzen zu können“.

PLUS

Feedback



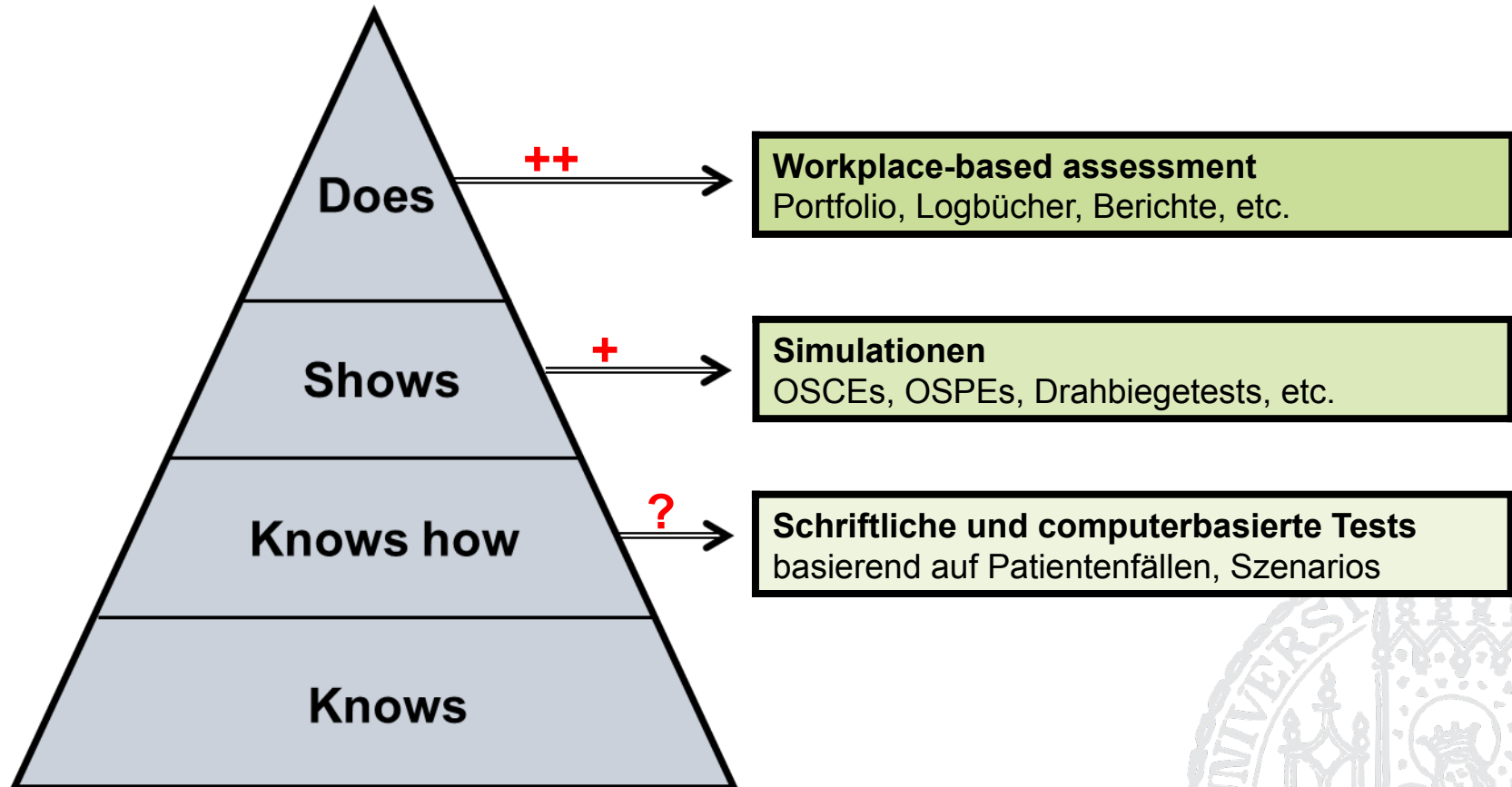
<http://fotos.rennrad-news.de/p/46637>



Prüfungsformate



Prüfungsformate



Miller G. *The assessment of clinical skills/Competence/Performance* 1990

Van der Vleuten: *The assessment of professional competence: building blocks for theory development* 2010

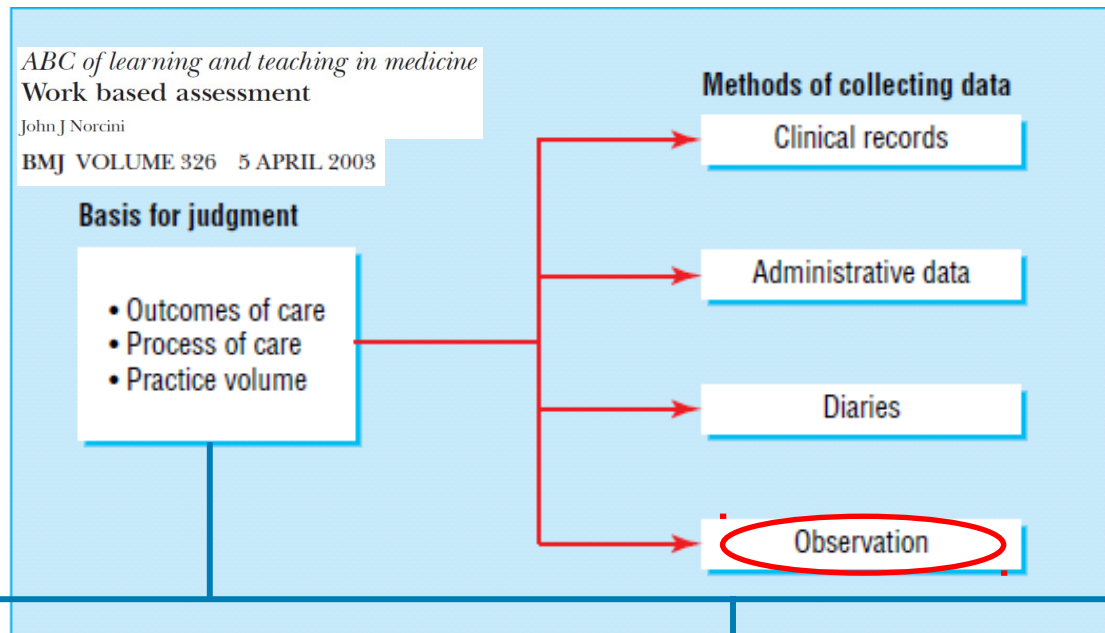
KLINIKUM DER UNIVERSITÄT MÜNCHEN®

Überprüfung von Verhalten: Grundprinzipien

- Mehrfache direkte Beobachtungen
- Standardisierte Beurteilungsinstrumente
 - Was will ich beurteilen (Kompetenzen)?
 - Wer sind die Beobachter/Beurteiler?
 - Was sind die Kriterien?
- Strukturiertes Feedback



Workplace-based assessment



Classification for work based assessment methods

Outcomes

Zufriedenheit, Adhärenz, Symptome, Heilung, Kosten, handwerkliches „Produkt“, etc.

Kann das Outcome ausschließlich der Leistung des Arztes zugeschrieben werden?

Einfluss von: Persönlichkeit des Patienten, Komplexität der Erkrankung, Patientenmix etc.

Process of Care

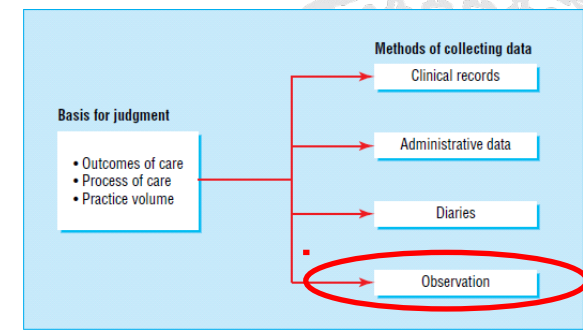
Screening, Prävention, Diagnosestellung, Durchführung von Maßnahmen, Management, Therapieplanung, Aufklärung, Beratung, etc.

Practice Volume

Zahl der Behandlung, der durchgeführten Prozeduren etc.

Beobachtung in realen Situationen

- **“Single event measures”**
 - *Beobachtung von Patientenkontakten*
 - Mini-Clinical Examination (Mini-CEX)
 - Dental evaluation of performance (D-EPs)
 - *Beobachtung von Prozeduren*
 - Direct Observation of Procedural Skills (DOPS)
 - Clinical Procedure Quality Assessment Form
- **“Global performance measures” (longer periods of time)**
 - 360° Evaluation - multi-source Feedback
 - Portfolio
 - Entrusted Professional Activities (EPA)



Classification for work based assessment methods

Mini-Clinical Examination (Mini-CEX)

Einsatz

- American Board of Internal Medicine (ABIM)
- Ziel: formativ, strukturiertes Feedback
- 15 Min. Patientenkontakt, 5-10 Min. Feedback

Reliabilität & Validität

- Cronbach's $\alpha = 0.8 \rightarrow$ mind. 10 Beobachtungen
- Unterscheidet zwischen Assistenten verschiedener Jahre
- Starke Korrelationen mit anderen Instrumenten, die Performanz messen
- Halo-Effekt: in einer Domäne gut = in allen Domänen gut

Herausforderungen

- Feedback-Training der Ärzte
- Feasibility: 10 Beobachtungen ...

Norcini et al., 1995, Aves de Lima et al., 2007



UK Dental Foundation Training

UK Committee of Postgraduate Dental Deans and Directors comprises all the Postgraduate Dental Deans and Directors in the UK. <http://www.copdend.org>

A Dental Evaluation of Performance (D-EP) Assessment Tool

Foundation Dentist (FD) _____ GDC No _____ Date _____

Evaluator _____ Position _____ Service / Placement _____

Clinical Major Competencies covered 1 2 3 4 5 6 7 8 9 10 11
 (Key on reverse - **Please circle all that apply to this encounter**)

Description of case / encounter _____

Please grade the following areas using the scale 1 - 6	Needs Improvement before DFT* completion		Borderline for DFT completion	Acceptable for DFT completion	Above expectations for DFT completion		Not Observed
	1	2	3	4	5	6	
1. Patient examination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Diagnosis / clinical judgement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Treatment planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Procedural knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Technical ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Communication (patient & team)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Time management & organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
After feedback given on the assessment please rate:							
9. FDs insight into own performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Areas of good performance _____

Areas for development before completion of DFT _____

Time (observing) _____ Time (feedback) _____

Direct Observation of Procedural Skills (DOPS)

Direct Observation of Procedural Skills (DOPS) – Anaesthesia

Please complete the questions using a cross (x). Please use black ink and CAPITAL LETTERS.

Trainee's surname:

Trainee's forename(s):

GMC number: GMC NUMBER MUST BE COMPLETED

Clinical setting: Theatre ICU A&E Delivery suite Pain clinic Other

Procedure:

Case category: Elective Scheduled Urgent Emergency Other ASA Class: 1 2 3 4 5

Assessor's position: Consultant SASG SpR Nurse Other

Number of times previous DOPS observed by assessor with any trainee: 0 1 2-5 5-9 >9

Number of times procedure performed by trainee: 0 1-4 5-9 >10

Please grade the following areas using the scale below:		Below expectations		Borderline	Meets expectations	Above expectations		U/C*
		1	2			3	4	
1	Demonstrates understanding of indications, relevant anatomy, technique of procedure							
2	Obtains informed consent							
3	Demonstrates appropriate pre-procedure preparation							
4	Demonstrates situation awareness							
5	Aseptic technique							
6	Technical ability							
7	Seeks help where appropriate							
8	Post procedure management							
9	Communication skills							
10	Consideration for patient							
11	Overall performance							

*U/C Please mark this if you have not observed the behaviour and therefore feel unable to comment.

Please use this space to record areas of strength or any suggestions for development.

Trainee satisfaction with DOPS: Not at all 1 2 3 4 5 6 7 8 9 10 Highly

Assessor satisfaction with DOPS: 1 2 3 4 5 6 7 8 9 10

What training have you had in the use of this assessment tool? Face-to-face Have read guidelines Web/CDROM

Assessor's signature: Date:

Time taken for observation (in minutes): Time taken for feedback (in minutes):

Direct Observation of Procedural Skills (DOPS)

Einsatz

- UK Royal College of Physicians
- Ziel: strukturiertes Feedback über das korrekte Ausführen prozeduraler Fertigkeiten
- Global Rating Scale: kann für verschiedene Skills eingesetzt werden

Reliabilität & Validität

- Bisher wenig Studien, Evidenzbedarf
- UK DOPS: valider und reliabler als traditionelles Logbook
- Anästhesiologische Skills: gute Reliabilität, gute Konstruktvalidität, bildet „Level of experience“ ab



“Global performance measures” (longer periods of time)



360° Evaluation - Multisource Feedback

Einsatz

- Verschiedene Instrumente vorhanden
- Ziel: Feedback von Kollegen, Vorgesetzten, Patienten, andere Gesundheitsberufe
- Feedback wird von Supervisor gesammelt und anonymisiert & gebündelt zurückgemeldet
- Bsp. UK Foundation Programme: Mini peer assessment tool (Mini-PAT) – 8 Beurteilungen
- Murphy: 6 Beurteiler für je 2 Situationen

Reliabilität & Validität

- reliabel, machbar
- scheint z.T. zu Verhaltensänderung zu führen
- korreliert mit schriftlichen Prüfungsergebnissen



UK Dental Foundation Training

UK Committee of Postgraduate Dental Deans and Directors comprises all the Postgraduate Dental Deans and Directors in the UK. <http://www.copdend.org>

Dental Foundation Training – Mini-Peer Assessment Tool (Mini-PAT)

Foundation Dentist (FD) _____ GDC No _____ Date _____

Evaluator _____ Position _____ Service / Placement _____

Please grade the following areas using the scale 1 - 6	Needs Improvement before DFT completion		Borderline for DFT completion	Acceptable for DFT completion	Above expectations for DFT completion		Not Observed
	1	2	3	4	5	6	
Good Clinical Care							
1. Ability to diagnose patient problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Ability to formulate appropriate management plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Awareness of their own initiative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Ability to respond to psychosocial aspects of illness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Appropriate utilization of resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintaining Good Dental Practice							
6. Ability to manage time effectively / prioritise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Technical skills (appropriate current practice)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Relationships with Patients							
8. Communication with patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Communication with carers / family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Respect for patients & their right to confidentiality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working with Colleagues							
11. Verbal communication with colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Written communication with colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Ability to recognise & value others' contributions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Accessibility / reliability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Do you have concerns about this Foundation Dentists probity or health? Yes No
(If yes please state concerns below)

Which clinical environment have you observed the dentist in? _____

Your position: GDS Trainer DFT Adviser Foundation Dentist
Associate DCP AHP
Nurse Consultant SHO SpR
Other _____

If you are a nurse / AHP / DCP how long have you been qualified? _____ years

Length of working relationship _____ months

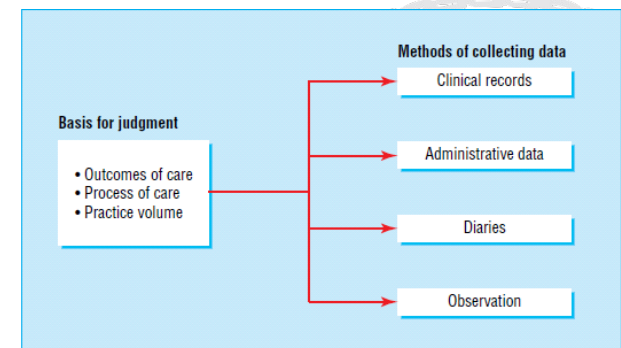
Portfolio

Einsatz

- Ziel: Feedback und Reflexion
“a purposeful collection of work” (Friedman, 2001), v. a. postgraduate training
- Undergraduate: Schwerpunkt häufig Professionalism
- UK Dental Foundation Programme
- Gadbury-Amyot et al., portfolio assessment in a competency-based dental hygiene program, University of Missouri-Kansas City School of Dentistry
- Brennan. A Multivariate Generalizability Analysis of Portfolio Assessments in Dental Education. University of Iowa; 2013

Reliabilität & Validität

- Kann mit viel Aufwand reliabel gestaltet werden
- Entscheidender ist jedoch:
Feedback & Reflexion verbunden mit Supervision
- Bürokratie reduzieren (e-portfolio)



Classification for work based assessment methods

Portfolio: UK Dental Foundation Programme

Monitoring

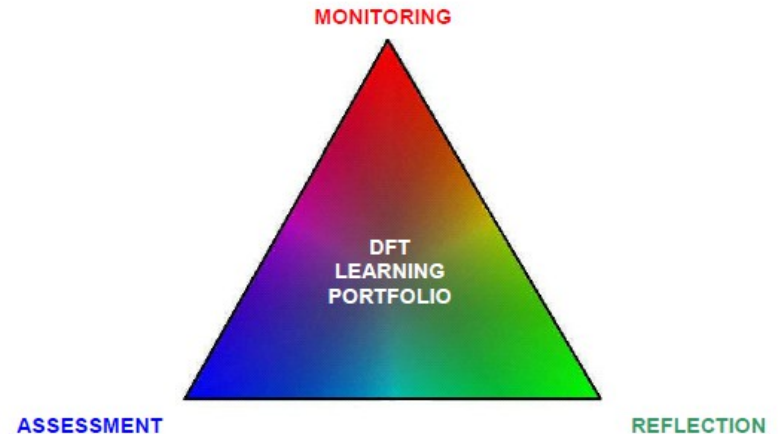
- Clinical experience log
- Assessment log
- Personal development plan
- Continuing professional development (CPD) & education log

Reflection

- Reflection form

Assessment

- Early stage peer review
- Dental case-based discussion
- Patient assessment questionnaire (general practice posts)
- Multi-source feedback (team assessment of behaviour, mini peer assessment tool)

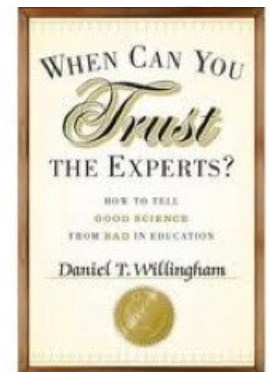


Entrusted Professional Activities (EPA)

- Ten Cate; BMJ 2006; Kritik am Kompetenz-/Performanzbegriff: Kompetenz führt nicht zwingend zu Performanz

“Maybe we should not focus on competencies but on day to day activities ...”

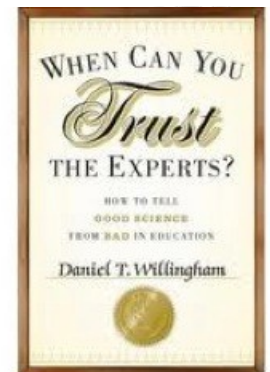
“Activities are the constituting elements of professional work”



EPAs und Kompetenzen

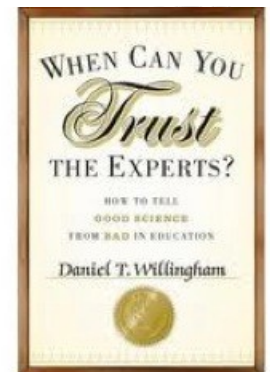
Kompetenzen sind „die bei Individuen verfügbaren oder durch sie erlernbaren **kognitiven Fähigkeiten** und **Fertigkeiten**, um bestimmte **Probleme zu lösen**, sowie die damit verbundenen motivationalen, volitionalen und sozialen **Bereitschaften** und Fähigkeiten, um die **Problemlösungen in variablen Situationen** erfolgreich und verantwortungsvoll nutzen zu können“. (Weinert 2001, S. 27 f.)

Ab welchem Zeitpunkt können wir einem Lernenden vertrauen, dass er professionelle Aktivitäten ausführen kann, um Probleme zu lösen?



Kriterien für EPAs

1. Essentieller Teil der professionellen Arbeit
2. Bedarf spezifisches Wissen, Fertigkeiten und Einstellungen
3. Muss zu einem sichtbaren Output professioneller Arbeit führen
4. Durchführung wird auf qualifiziertes Personal begrenzt
5. Ist als eigenen Entität durchführbar
6. Durchführung ist zeitlich begrenzt
7. Beobachtbarer und messbarer Prozess und Outcome (gut/nicht gut gemacht)
8. Sollte verschiedene Kompetenzen reflektieren



EPA und Kompetenzen

Chart 1

The Two-Dimensional Matrix Relationship Between Entrustable Professional Activities (EPAs) and General Competencies*

Viewpoint: **Competency-Based Postgraduate Training: Can We Bridge the Gap between Theory and Clinical Practice?**

Olle ten Cate, PhD, and Fedde Scheele, PhD

Acad Med. 2007; 82:542–547.

		EPAs						
		Care of uncomplicated pregnancies	Normal delivery	Uncomplicated puerperium and neonate	The high risk complicated delivery	Perioperative care	Surgery estimated as low risk	
ACGME competencies [†]	The ability to provide adequate <i>patient care</i>	●	●	●	●	●	●	The overall assessment of competencies is not actually done. In stead, their presence is inferred from the assessment of sufficient EPAs.
	The possession and ability to apply <i>medical knowledge</i>	●	●	●	●	●	●	
	The ability to <i>learn from clinical practice and to improve it</i>				●	●		
	The possession and ability to apply <i>interpersonal and communication skills</i>		●		●	●		
	The ability and commitment to carry out <i>professional responsibilities</i>	●		●		●		
	The awareness of and ability to operate optimally within the <i>context, system, and resources of health care</i>				●		●	
		<u>EPAs</u> are the focus of assessment, by observation, ratings or otherwise						

* EPAs for obstetrics–gynecology and Accreditation Council for Graduate Medical Education (ACGME) competencies are used as examples.

[†] The terminology is slightly adapted, to abide by a consequent use of competency terminology as the ability of a professional.



Bsp. EPA: Weiterbildung Psychiatrie, Australien



Table 1 – EPAs in Stages 1 and Stage 2 of RANZCP Fellowship training

Area of Practice	EPA identification	Title
Stage 1 EPAs – all four EPAs must be entrusted by the end of Stage 1		
Adult psychiatry 12 months general psychiatry training, 6-months in an acute setting	ST1-GEN-EPA1	Producing discharge summaries and organising appropriate transfer of care.
	ST1-GEN-EPA2	Initiating an antipsychotic medication in a patient with schizophrenia.
	ST1-GEN-EPA3	Active contribution to the multidisciplinary team meeting.
	ST1-GEN-EPA4	Communicating with a family about a young adult's major mental illness.



Bsp. EPA: Weiterbildung Psychiatrie, Australien

ST1-GEN-EPA2 – Initiating an antipsychotic

Area of practice	Adult psychiatry	EPA identification	ST1-GEN-EPA2	
Stage of training	Stage 1 – Basic	Version	v0.8 (BOE-approved 16/03/12; amended 12/07/12)	
The following EPA will be entrusted when your supervisor is confident that you can be trusted to perform the activity described at the required standard without more than distant (reactive) supervision. Your supervisor feels confident that you know when to ask for additional help and that you can be trusted to appropriately seek assistance in a timely manner.				
Title	Initiating an antipsychotic medication in a patient with schizophrenia.			
Description Maximum 150 words	The trainee can engage where possible with the patient, obtaining informed consent as far as possible, listen and respond to the patient's concerns and provide explanations in a clear manner. They are aware of the factors that may contribute to noncompliance and efforts to improve compliance. The trainee understands the role and use of antipsychotics, their risks, benefits and alternatives as well as common and potentially serious side effects, their detection and appropriate management. They have a respectful and professional attitude towards the patient and other members of the multidisciplinary team.			
Fellowship competencies	ME	2, 5	HA	
	COM	1	SCH	
	COL	1, 2	PROF	1, 2
	MAN			
Knowledge, skills and attitude required The following lists are neither exhaustive nor prescriptive.	<p>Competence is demonstrated if the trainee has shown sufficient aspects of the knowledge, skills and attitude described below.</p> <p>Ability to apply an adequate knowledge base</p> <ul style="list-style-type: none"> • Positive and negative symptoms and cognitive deficits in schizophrenia, the current dominant hypotheses for schizophrenia and their mechanisms. • The antipsychotic effect and other effects of these drugs on thinking and behaviour. • The common time period for the onset of the full antipsychotic effect. • The concept of a ceiling for the more specific antipsychotic effects, the possibility of inadvertent 'behavioural toxicity' and issues surrounding polypharmacy. • Factors other than noncompliance that can initiate or maintain a relapse, eg. high expressed emotion, illicit drugs, drug 			
Assessment method	Progressively assessed during individual and clinical supervision, including three appropriate WBAs.			
Suggested assessment method details	<ul style="list-style-type: none"> • Case-based discussion. • Mini-Clinical Evaluation Exercise. • Direct observation. 			

References

THE ROYAL AUSTRALIAN AND NEW ZEALAND COLLEGE OF PSYCHIATRISTS. *Code of Ethics*. Melbourne: RANZCP, 2009.

Relevanz für die Zahnmedizin?

Testgütekriterien



**Lerntheoretische
Prinzipien**

Assessment von Verhalten: Grundprinzipien

Mehrfache direkte Beobachtung

Standardisierte Beurteilungsinstrumente

Strukturiertes Feedback

**Anmerkungen? Ideen? Kommentare?
Vielen Dank!**