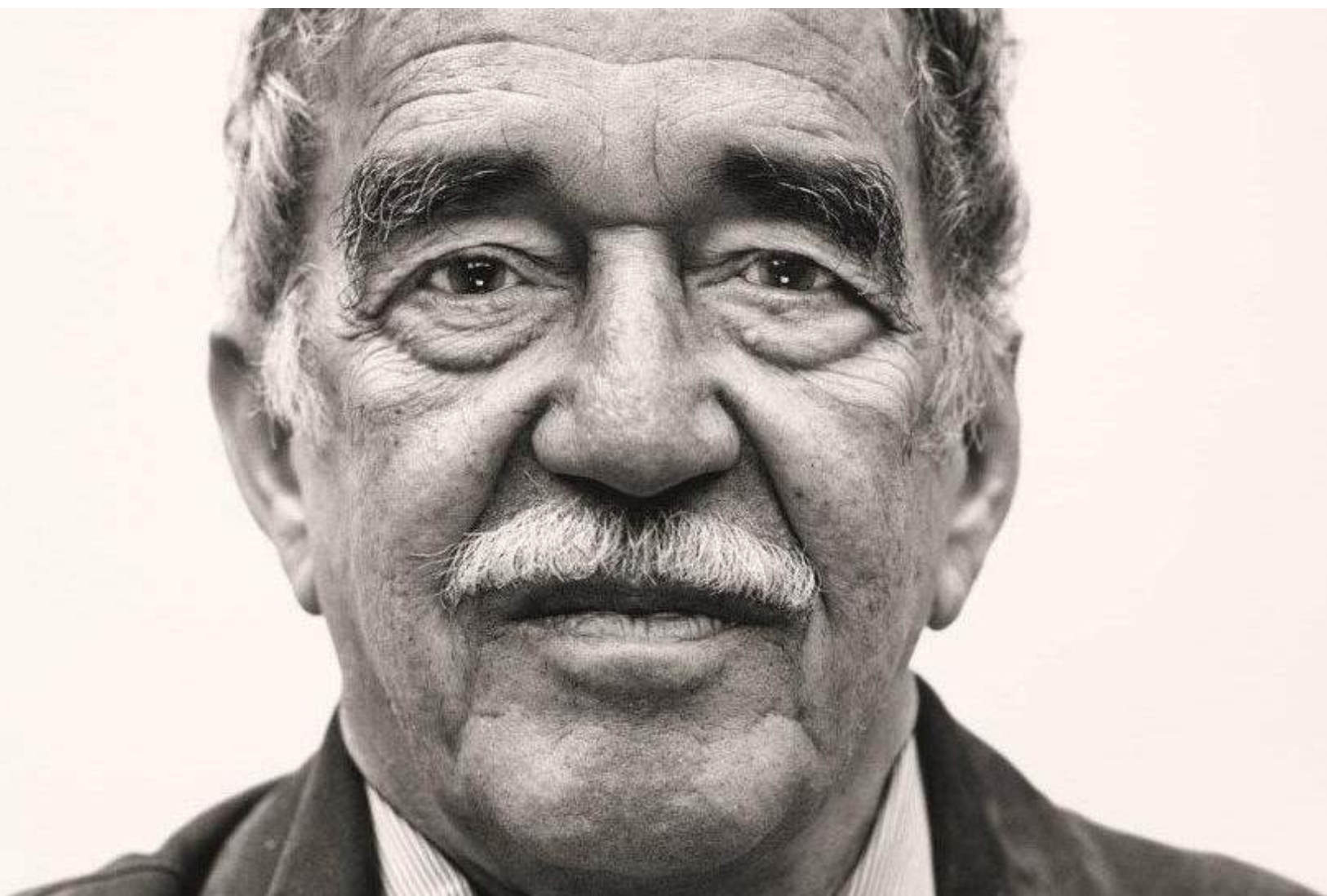


# **Trends in workplace-based assessment**



**Congreso Mundial de Educacion Medica - ASCOFAME 60 Años  
Cartagena 2019**

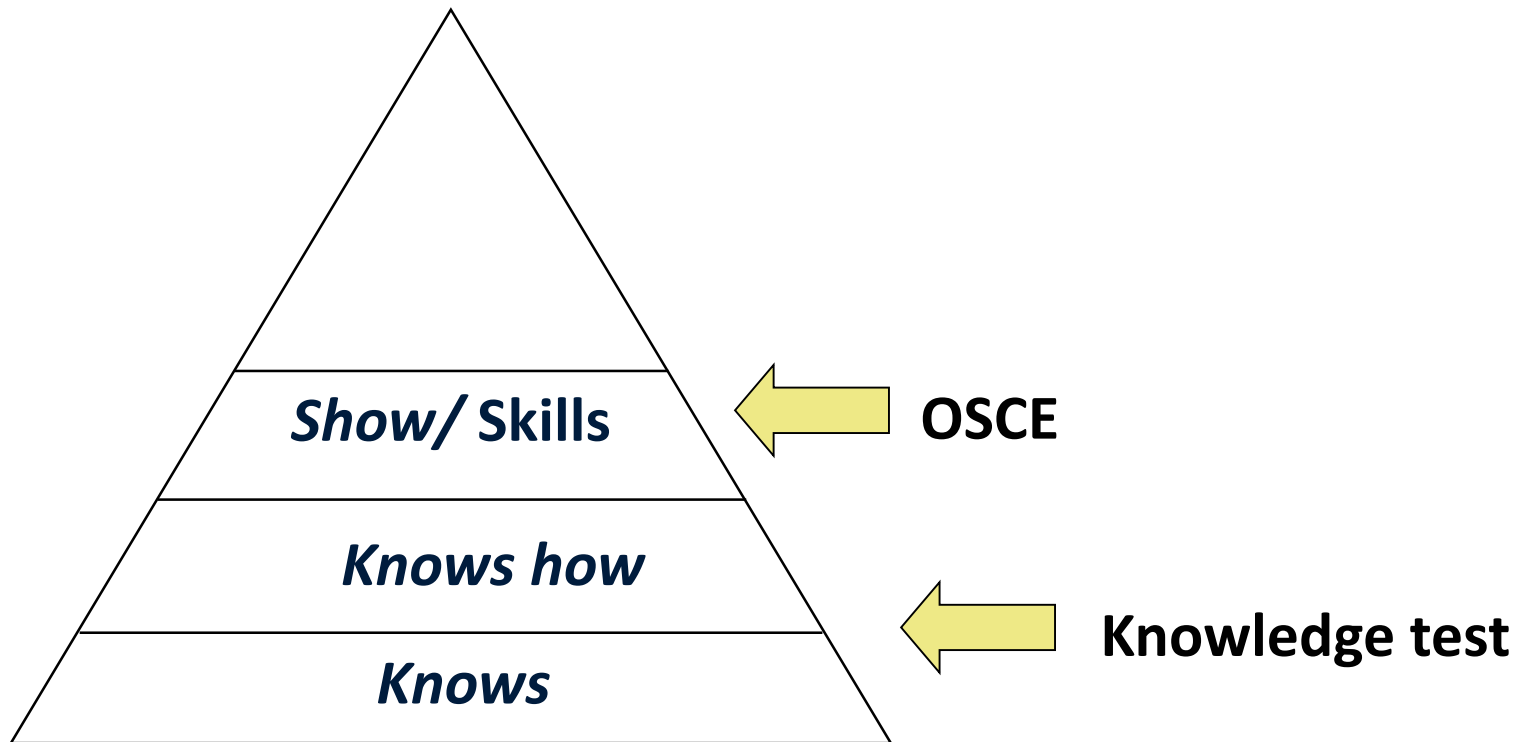
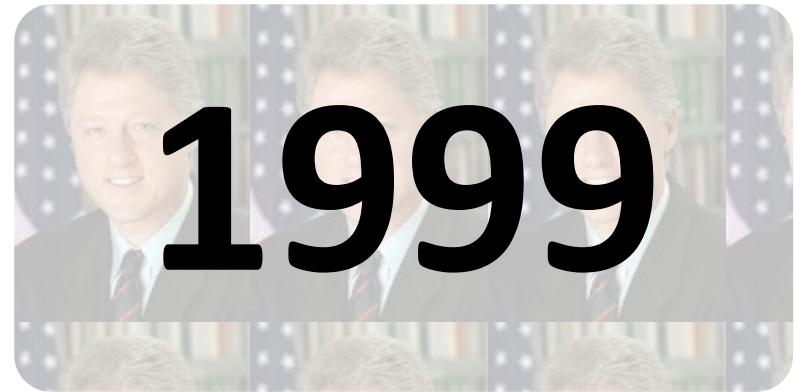
**Erik Driessen**  
**Maastricht University, the Netherlands**  
**[www.erikdriessen.com](http://www.erikdriessen.com)**  
**[@erikwdriessen](https://twitter.com/erikwdriessen)**







1999



The image features a repeating pattern of Barack Obama's official 2009 inaugural portrait. He is shown from the waist up, wearing a dark suit, white shirt, and blue patterned tie, with his arms crossed and a smile. The background includes the American flag and the Presidential Seal. The year "2009" is superimposed in large, bold, black font over the center of the image.

2009

# Competency-frameworks



## CanMeds

- Medical expert
- Communicator
- Collaborator
- Manager
- Health advocate
- Scholar
- Professional



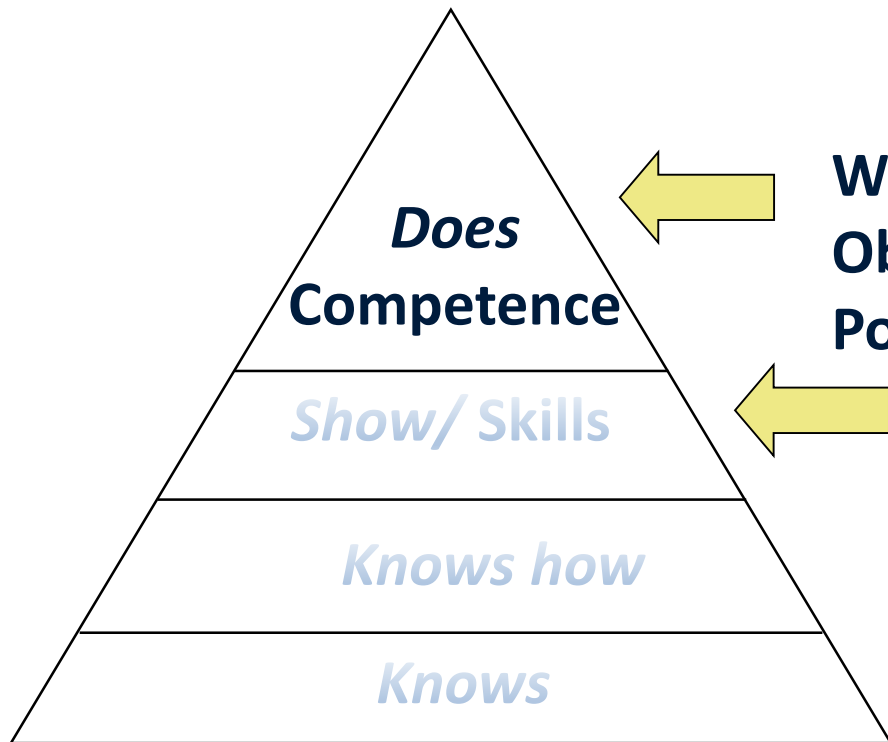
## ACGME

- Medical knowledge
- Patient care
- Practice-based learning & improvement
- Interpersonal and communication skills
- Professionalism
- Systems-based practice



## GMC

- Good clinical care
- Relationships with patients and families
- Working with colleagues
- Managing the workplace
- Social responsibility and accountability
- Professionalism

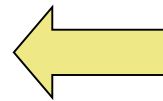


***Does  
Competence***

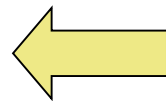
*Show/ Skills*

*Knows how*

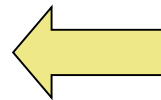
*Knows*



**Workplace-based assessment:  
Observations (Mini-CEX); MSF;  
Portfolio**



OSCE



Knowledge test



# Mini-Clinical Examination

Short observation during clinical patient contact (10-20 minutes)

Oral evaluation

Generic evaluation forms completed

Forename																																
GMC Number:							<b><u>GMC NUMBER MUST BE COMPLETED</u></b>																									
Clinical setting:	A&E <input type="checkbox"/>				OPD <input type="checkbox"/>				In-patient <input type="checkbox"/>				Acute Admission <input type="checkbox"/>				GP Surgery <input type="checkbox"/>															
Clinical problem category:	Airway/ Breathing <input type="checkbox"/>				CVS/ Circulation <input type="checkbox"/>				Gastro <input type="checkbox"/>				Neuro <input type="checkbox"/>				Pain <input type="checkbox"/>				Psych/ Behav <input type="checkbox"/>				<input type="text"/>							
New or FU:	New <input type="checkbox"/>				FU <input type="checkbox"/>				Focus of clinical encounter:				History <input type="checkbox"/>				Diagnosis <input type="checkbox"/>				Management <input type="checkbox"/>				Explanation <input type="checkbox"/>							
Number of times patient seen before by trainee:	0 <input type="checkbox"/>				1-4 <input type="checkbox"/>				5-9 <input type="checkbox"/>				>10 <input type="checkbox"/>				Complexity of case:				Low <input type="checkbox"/>				Average <input type="checkbox"/>				High <input type="checkbox"/>			
Assessor's position:	Consultant <input type="checkbox"/>				GP <input type="checkbox"/>				SpR <input type="checkbox"/>				SASG <input type="checkbox"/>				SHO <input type="checkbox"/>				Other				<input type="text"/>							
Number of previous mini-CEXs observed by assessor with <u>any</u> trainee:	0 <input type="checkbox"/>				1 <input type="checkbox"/>				2 <input type="checkbox"/>				3 <input type="checkbox"/>				4 <input type="checkbox"/>				5-9 <input type="checkbox"/>				>9 <input type="checkbox"/>							
<b>Please grade the following areas using the scale below:</b>								Below expectations for F1 completion		Borderline for F1 completion		Meets expectations for F1 completion		Above expectations for F1 completion		U/C*																
1. History Taking								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																		
2. Physical Examination Skills								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																		
3. Communication Skills								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																		
4. Clinical Judgement								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																		
5. Professionalism								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																		
6. Organisation/Efficiency								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																		
7. Overall clinical care								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																		
*U/C Please mark this if you have not observed the behaviour and therefore feel unable to comment																																

a Wednesday evening

Location: Emergency Department Hospital

Resident: dr. Marijke van Aken

Clinical teacher: dr. Hein Brackel

Patient: Jip

	Assessor 1
Medical expert	4
Communicator	3
Professional	2
Judgement	3

# PORTFOLIO

https://www.umfolio.nl/htdocs/progress.php?bcp=%5B%5B%22Hc EPASS - Masterportfolio Belgie.FM - Radio luisteren via ...

File Edit View Favorites Tools Help

Huisartsgeneeskunde Ma... Webmail UM EleUM General Practice Maastricht

help backgroundinformation log out

DEMO mode

DASHBOARD INSERT PROGRESS PROFILE

EPASS

Home / Progress / Progress recent functions

**PROGRESS**  
Competencies  
Progress  
Narrative feedback

**FORMS**  
Workplace based assessments  
Selfassessments  
Videoassessments  
360-degree feedback

**OTHER**  
Protocol & Start document  
Evidence  
Hand in

## Overview forms

Form	SCIP	HELP	EL8	EL10	EL18	IM	S	O/G&P		FSoM	A-KO
CAT	0	0	0	0	0	1	0	0	0	0	0
mini-CEX	0	0	0	0	0	3	0	0	0	0	0
Multisource Feedback	0	0	0	0	0	1	0	0	0	0	0

(© O&O Maastricht University)



**2019**

# What is wrong with assessment in postgraduate training? Lessons from clinical practice and educational research

ERIK DRIESSEN<sup>1</sup> & FEDDE SCHEELE<sup>2</sup>

<sup>1</sup>Maastricht University, The Netherlands, <sup>2</sup>St Lucas Andreas Hosp, The Netherlands

## Abstract

Workplace-based assessment is more commonly given a lukewarm than a warm welcome by its prospective users. In this article, we summarise the workplace-based assessment literature as well as our own experiences with workplace-based assessment to derive lessons that can facilitate acceptance of workplace-based assessment in postgraduate specialty training. We propose to shift the emphasis in workplace-based assessment from assessment of trainee performance to the learning of trainees. Workplace-based assessment should focus on supporting supervisors in taking entrustment decisions by complementing their “gut feeling” with information from assessments and focus less on assessment and testability. One of the most stubborn problems with workplace-based assessment is the absence of observation of trainees and the lack of feedback based on observations. Non-standardised observations are used to organise feedback. To make these assessments meaningful for learning, it is essential that they are not perceived as summative by their users, that they provide narrative feedback for the learner and that there is a form of facilitation that helps to integrate the feedback in trainees’ self-assessments.

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Forename																				
GMC Number:							<b><u>GMC NUMBER MUST BE COMPLETED</u></b>													
Clinical setting:	<div style="background-color: #fde9d9; padding: 10px; text-align: center; font-weight: bold;">CHECKLIST APPROACH</div>														GP Surgery					
Clinical problem category:	<div style="display: flex; justify-content: space-between;"> <span>Breathing <input type="checkbox"/></span> <span>Circulation <input type="checkbox"/></span> <span>Gastro <input type="checkbox"/></span> <span>Neuro <input type="checkbox"/></span> <span>Pain <input type="checkbox"/></span> <span>Behav <input type="checkbox"/></span> <span>Other <input type="text"/></span> </div>																			
New or FU:	New <input type="checkbox"/>		FU <input type="checkbox"/>		Focus of clinical encounter:				History <input type="checkbox"/>		Diagnosis <input type="checkbox"/>		Management <input type="checkbox"/>		Explanation <input type="checkbox"/>					
Number of times patient seen before by trainee:	0 <input type="checkbox"/>		1-4 <input type="checkbox"/>		5-9 <input type="checkbox"/>		>10 <input type="checkbox"/>		Complexity of case:		Low <input type="checkbox"/>		Average <input type="checkbox"/>		High <input type="checkbox"/>					
Assessor's position:	Consultant <input type="checkbox"/>		GP <input type="checkbox"/>		SpR <input type="checkbox"/>		SASG <input type="checkbox"/>		SHO <input type="checkbox"/>		Other <input type="text"/>									
Number of previous mini-CEXs observed by assessor with <u>any</u> trainee:	0 <input type="checkbox"/>		1 <input type="checkbox"/>		2 <input type="checkbox"/>		3 <input type="checkbox"/>		4 <input type="checkbox"/>		5-9 <input type="checkbox"/>		>9 <input type="checkbox"/>							
<b>Please grade the following areas using the scale below:</b>					Below expectations for F1 completion		Borderline for F1 completion		Meets expectations for F1 completion		Above expectations for F1 completion		U/C*							
1. History Taking					<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
2. Physical Examination Skills					<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
3. Communication Skills					<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
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5. Professionalism					<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
6. Organisation/Efficiency					<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
7. Overall clinical care					<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					

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



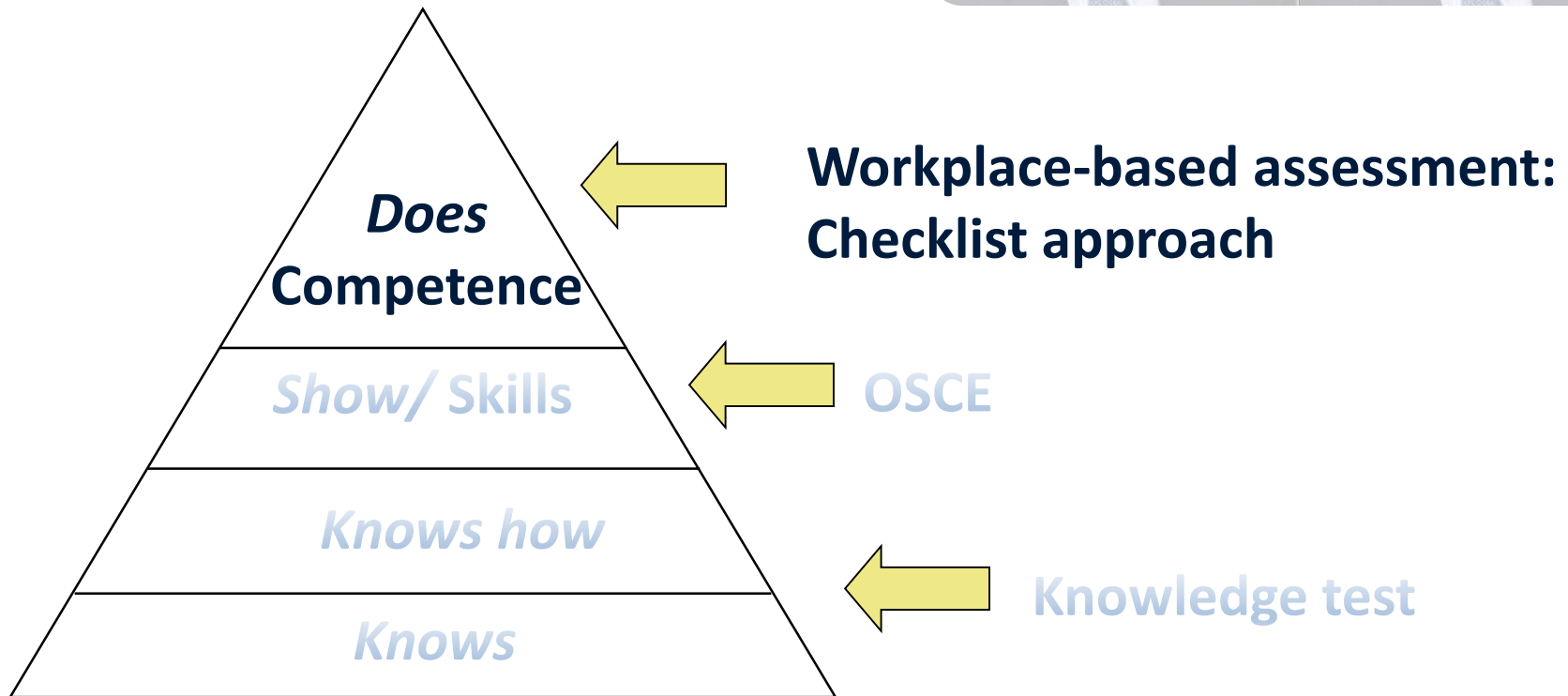
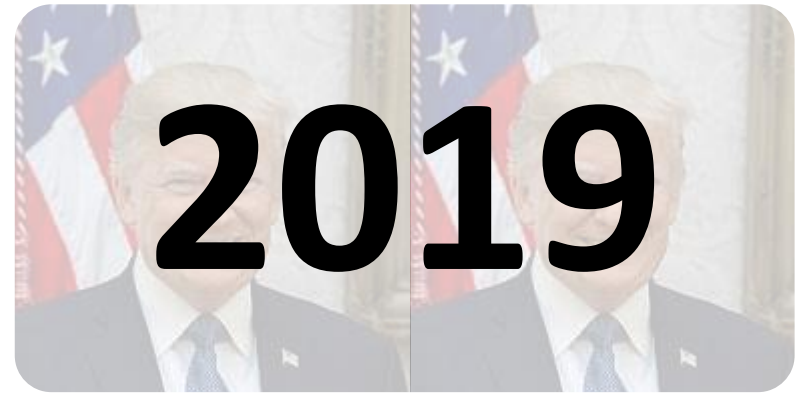


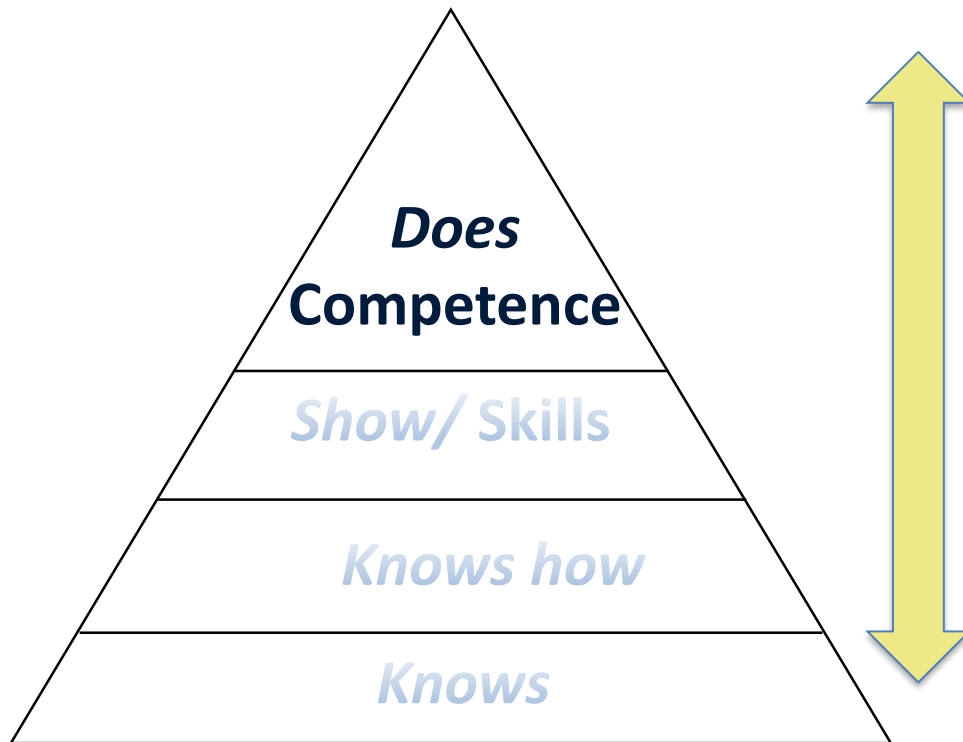
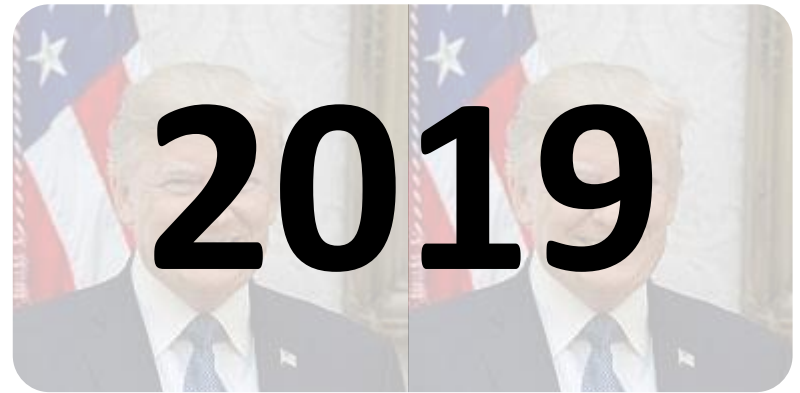
	Pilot 1	Pilot 2	Pilot 3
Take off	75%	95%	70%
Communication with passengers	85%	45%	70%
Teamwork	90%	45%	70%
Landing	30%	95%	70%
Average	70%	70%	70%

Chris Harrison, AMEE 2016

- Scores
- Little focus on learning
- Failure to fail

Doctor's Surname																																
Forename																																
GMC Number:						<b><u>GMC NUMBER MUST BE COMPLETED</u></b>																										
Clinical setting:	A&E <input type="checkbox"/>				OPD <input type="checkbox"/>				In-patient <input type="checkbox"/>				Acute Admission <input type="checkbox"/>				GP Surgery <input type="checkbox"/>															
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6. Organisation/Efficiency								<input type="checkbox"/>				<input type="checkbox"/>				<input type="checkbox"/>				<input type="checkbox"/>				<input type="checkbox"/>								
7. Overall clinical care								<input type="checkbox"/>				<input type="checkbox"/>				<input type="checkbox"/>				<input type="checkbox"/>				<input type="checkbox"/>								





**Learner chart approach/  
Programmatic assessment**



# LEARNER CHART APPROACH



## Checklist approach

- Scores
- Little focus on learning
- Failure to fail

## Learner chart approach

- Narratives
- Combination of information
- Support learning
- Entrustable professional activities (EPA)



## CHECKLIST APPROACH

	Assessor 1
Medical expert	4
Communicator	3
Professional	2
Judgement	3



## LEARNER CHART APPROACH

	Assessor 1
Medical expert	Capable to perform history taking under stressful conditions. Good knowledge.
Communicator	Friendly and open communication
Professional	Didn't address worried mother. Next time address emotions parents before starting physical examination.
Judgement	Sufficient

## Mini Clinical Evaluation Exercise



**KNOWLEDGE**

**OSCE**

**WORKPLACE-**

**BASED**

**LEARNER**

**CHART**



2029



# Exploring the impact of artificial intelligence on teaching and learning in higher education

Stefan A. D. Popenici<sup>1\*</sup>  and Sharon Kerr<sup>2</sup>

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Campus, Orange 1.2.15, Ellengowan  
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0909, Australia

Full list of author information is  
available at the end of the article

## Abstract

This paper explores the phenomena of the emergence of the use of artificial intelligence in teaching and learning in higher education. It investigates educational implications of emerging technologies on the way students learn and how institutions teach and evolve. Recent technological advancements and the increasing speed of adopting new technologies in higher education are explored in order to predict the future nature of higher education in a world where artificial intelligence is part of the fabric of our universities. We pinpoint some challenges for institutions of higher education and student learning in the adoption of these technologies for teaching, learning, student support, and administration and explore further directions for research.

**Keywords:** Higher education, Artificial intelligence, Teacherbots, Augmentation, Machine learning, Teaching, Graduate attributes

## Introduction

The future of higher education is intrinsically linked with developments on new technologies and computing capacities of the new intelligent machines. In this field, advances in artificial intelligence open to new possibilities and challenges for teaching and learning in higher education, with the potential to fundamentally



# Exploring the impact of artificial intelligence on teaching and learning in higher education

Stefan A. D. Popenici<sup>1\*</sup> and Sharon Kerr<sup>2</sup>

\* Correspondence:

**HUMANISTICS**

Charles Darwin University, Casuarina Campus, Orange 1.2.15, Ellengowan Drive, Darwin, Northern Territory 0909, Australia

**CURE** author information is at the end of the article

**INDIVIDUAL PERFORMANCE**

**PATIENT INVOLVEMENT**

## Abstract

This paper explores the phenomena of the emergence of the use of artificial intelligence in teaching and learning in higher education. It investigates educational implications of emerging technologies on the way students learn and how institutions teach and evolve. Recent technological advances have increased the rate of adopting new technologies in higher education. This paper is aimed in order to predict the future nature of higher education in a world where artificial intelligence is part of the fabric of our universities. We pinpoint some challenges for institutions of higher education and student learning in the adoption of these technologies for teaching, learning, student

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## Introduction

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**CARE**

**TEAM PERFORMANCE**



**Erik Driessen**

@erikwdriessen

What will be the future trends in workplace-based assessment?  
Who has suggestions? I'm intending to address this question in Cartagena on Sunday

12:27am · 23 Mar 2019 · Twitter for iPhone

 View Tweet Activity

**4** Replies **1** Retweet **8** Likes



Reply to @erikwdriessen

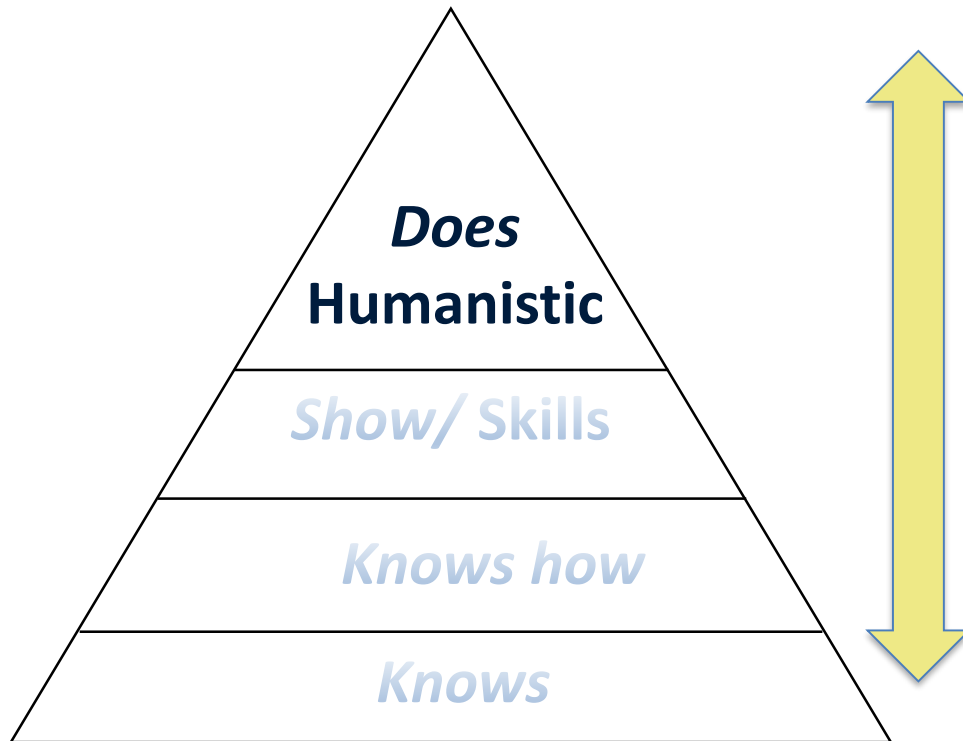
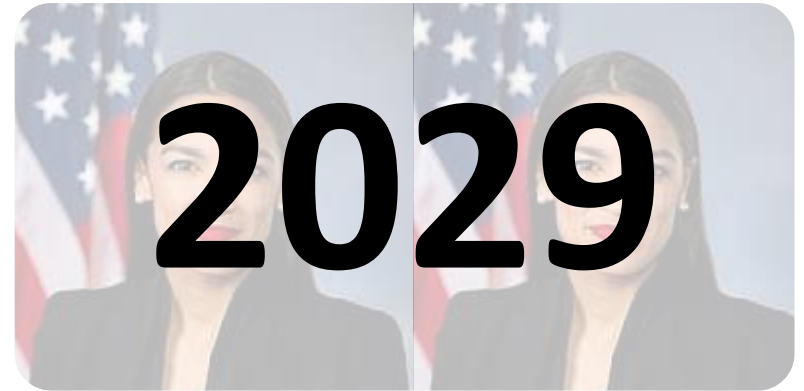


**Chris Roberts** @chrissr2007

3h

Replying to @erikwdriessen

The future of #WBA? Health professionals will be seen as talent supported by right technology



**E- Learner chart approach/  
Programmatic assessment**

**Video/e-tools**

**Clinical performance analytics**

**Team assessment**





**1999**



**2009**



**2019**



**2029**

**Knowledge  
OSCE**

**Workplace  
based**

**Learner  
Chart**

**e-Learner  
Chart**

# **Trends in workplace-based assessment**



**Congreso Mundial de Educacion Medica - ASCOFAME 60 Años  
Cartagena 2019**

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**[@erikwdriessen](https://twitter.com/erikwdriessen)**