Supplementary Table: Summary of the themes which emerged from the semi-structured interviews

Themes	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Participant 6	Participant 7	Participant 8	Participant 9	Participant 10	Total
Use of PBAS to derive education value											
Questionable Educational value	Χ	X	Х	Х	Х	Х	X	X	Х	X	10
Form filling / tick box exercise	Х	X	Х	Х	Х	Х	Х	X	Х	X	10
Can be used well / provide benefit	Х	Х		Х	Х	Х	Х	Х	Х		8
Generates training			Х	Х	Х	Х	Х	Х		Х	7
Fit for purpose? / specificity required	Х		Х		Х		Х	Х		Х	6
Formalisation of training	Х			Х	Х	Х	Х				5
Quality of assessment?	Х	Х	Х			Х				Х	5
Improved confidence	Х	Х		Х			Х				4
Holistic assessment / technical and non- technical	Х	Х								х	3
Learning non-technical skills	Х	Х									2
Increased worth with increased complexity	Х		Х		Х						3
Not level of training specific	Х					Х				Х	3
Too focused on basic competencies				Х							1
Examination of thought process	Х								Х		1
Need to review and generate targets based on previous PBA			х								1
Insufficient feedback / need for feedback			Х			Х	Х		Х	Х	5
Superfluous content / too generic	Х		Х	Х	Х					Х	5
Insufficient discussion	Х		Х		Х	Х					4
Expand PBA repertoire	Х	Х				Х					3
Takes away from other elements of training	Х					Х					2

Learning from mistakes	Х										1
Facilitates identification of good trainers		Х									1
Value of documenting progression		Х		Х	Х	Х	Х	Х			6
Focusing of training / identify areas for development	Х		Х	Х			х	х	х		6
Not valid	Х			Х	Х	Х			Х		5
Improved the quality of feedback				Х	Х		Х	Х			4
Exploratory questioning	Х										1
Use of PBAs for Assessment											
Form filling / tick box exercise	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	10
Numbers required	Х	Х	Х	Х		Х	Х	Х	Х	Х	9
Obstruction from seniors / lack of support / engagement		х	х		х	х	х	х	х	х	8
Timing of assessment (retrospective or prospective)	Х		х	х		х	х			х	6
Use as summative tool (for/against)					Х	Х	Х		Х	Х	5
(Over)simplification of assessment process	Х				Х		Х			Х	4
Trainees fill own forms	Х		Х		Х	Х				Х	5
Trainees misleading trainers	Х				Х	Х	Х				4
Formative?	Х	Х			Х		Х				4
Additional hurdle	Х			Х				Х			3
Expand PBA repertoire	Х	Х				Х					3
Not level of training specific	Х					Х				Х	3
Variation in use	Х	Х		Х							3
Identify trainees in trouble?					Х	Х					2
Unrealistic expectations of ability										Х	1
Too focused on basic competencies				Х							1
Need for greater evidence base					Х						1
Examination of thought process	Х								Х		1
Sign off = competent?				Х							1
Limited / No review of free text responses by assessors	Х	х	х	х	х	х	х	х	х	Х	10
Structured assessment	Х			Х	Х		Х	Х	Х	Х	7

Quality of assessment?	Х	Х	Х			Х				Х	5
Inter-rater/trainer reliability?					Х	Х					2
Trainees being modest	Χ										1
Trainer Dependent											
Form filling / tick box exercise	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	10
Trainer dependent	X	X	X	X	X	X	X	X	X	X	10
Trainees fill own forms	X		X		X	X				X	5
Trainer characteristics / skill dependent											
feedback				Х		Х				Х	3
Variation in use	Х	Х		Х							3
Trainer grade dependent feedback			Х			Х					2
Inter-rater/trainer reliability?					Х	Х					2
Develop rapport with trainers		Х									1
Obstruction from seniors / lack of support /		Х	Х		Х	Х	Х	Х	Х	Х	8
engagement		^	^		^	^	^	^	^	^	0
Need for trainer impetus to do PBAs /	Х	Х						Х	Х	Х	5
dedicated training list		^						^	^	^	,
Strengths and Benefits of PBAs											
Can be used well / provide benefit	Х	Х		Х	Х	Х	Х	Х	Х		8
Reflection	Х	Х	Х			Х	Х	Х	Х		7
Generates training			Х	Х	Х	Х	Х	Х		Х	7
Structured assessment	Х			Х	Х		Х	Х	Х	Х	7
Value of documenting progression		Х		Х	Х	Х	Х	Х			6
Focusing of training / identify areas for	Х		Х	Х			Х	Х	Х		c
development	*		^	^			^	X	^		6
Formalisation of training	Х			Х	Х	Х	Х				5
Improvement in attitudes towards PBA over		Х		Х		Х	Х	Х			5
time / improved awareness				^			^				_
Safety benefit	Х	Х	Х			Х		Х			5
Improved confidence	X	Х		Х			Х				4
Improved the quality of feedback				Х	Х		X	X			4
Holistic assessment / technical and non-	Х	X								X	3

technical											
Learning non-technical skills	Х	Х									2
Develop rapport with trainers		X									1
Facilitates identification of good trainers		X									1
Identify trainees in trouble?					Х	Х					2
Learning from mistakes	Х										1
Positive feelings		Х									1
- com g											
Limitations and areas for Improvement											
Educational value?	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	10
Form filling / tick box exercise	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	10
Limited / No review of free text responses by	v	v	v	v	v	v	v	v	v	v	40
assessors	X	X	X	Х	Х	Х	Х	Х	X	Х	10
Time consuming / hassle	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	10
Trainer dependent	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	10
Numbers required	Х	Х	Х	Х		Х	Х	Х	Х	Х	9
Obstruction from seniors / lack of support /		Х	Х		Х	Х	Х	Х	Х	Х	8
engagement		^	^		^	^	^	^	^	^	0
Stressful	Х	Х	Х	Х		Х	Х	Х	Х		8
Value of documenting progression		Х		Х	Х	Х	Х	Х			6
Apologetic stance	X	Х			Х	Х	Х				5
Insufficient feedback / need for feedback			Х			Х	Х		X	Х	5
Need for trainer impetus to do PBAs /	Х	Х						Х	Х	Х	5
dedicated training list		^						^		^	
Not valid	X			Х	X	X			X		5
No safety benefit				Х	Х		Х		Х	Х	5
Superfluous content / too generic	X		X	Х	Х					Х	5
Trainees fill own forms	X		Х		Х	Х				Х	5
(Over)simplification of assessment process	X				Х		Х			X	4
Trainees misleading trainers	X				Х	Х	Х				4
Being told	Χ			Х				X	X		4
Insufficient discussion	Χ		Х		Х	Х					4
Additional hurdle	Χ			Х				Х			3
Ambiguity	X				Х	Х					3

Expand PBA repertoire	Х	Х				Х				3
Not level of training specific	Х					Х			Х	3
Variation in use	Х	Х		Х						3
Takes away from other elements of training	Х					Х				2
Trainer concentrating on assessment during case	Х					Х				2
Increasing difficulty with seniority to complete (less supervision) / less useful with seniority							х		х	2
Resentment of the process				Х				Х		2
Unrealistic expectations of ability									Х	1
Too focused on basic competencies				Х						1
Need for greater evidence base					Х					1
Deprofessionalisation?	X									1
Other										
Mixed feelings	Х	Х	Х	Х	Х					5
Culture of training	Χ	Х						Х		3
Loss of candour	Χ									1

PBA, procedure-based assessment.