Utilising an innovative confidence tier marking grid to boost trainee pharmacists’ clinical decision making skills in the East of England

Paul McDermott and Mohamed Jawad Dungersi
Confidence Measure

Implementation and Outcomes

The pre-registration training placement gives you the chance to apply your academic knowledge in a real-life situation.

- Knowledge
- Skills
- Behaviours

3 Types of CAEs throughout Pre-Reg year:
1. Clinical Application MCQs
2. Clinical Application Written questions
3. OSCEs (Objective Structured Clinical Examinations)
Confidence Measure

Implementation and Outcomes

MCQ CAE format during residential 1 to 3

• **Day 1:** 10 CAE questions based on topics to be covered during that residential
• **Day 4:** 10 CAE questions. Based on material covered, but different questions to day 1
• Complete **2 answer grids** for each paper – keep 1 and submit the other
• **No feedback** during the residential
• **Answers** will be put onto **Blackboard** after each residential.
Self-Assessment

Closely aligned to the construct of self-efficacy

Self assessment can be defined as information about the learners provided by the learners themselves\(^4\).

The most popular methodology employed to measure learner’s self-assessment is a multiple choice quiz followed by a confidence tier questionnaire

Many of which display the Dunning-Kruger effect\(^4\).

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Self-Assessment

**METRICS** have come into sharp focus as we move into a new REF-TEF world.

“Does the Dunning-Kruger effect persist when “reporting confidence” becomes an implicit part of the process of answering a summative assessment question?”

This format (taken from TBL) has been designed to allow
For partial credit when marking MCQ’s

Students distribute 4 marks across the answer options in a strategic manner to gain the best possible score.
Self-Assessment

**METRICS** have come into sharp focus as we move into a new REF-TEF world

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97.22%
Self-Assessment

**METRICS** have come into sharp focus as we move into a new REF-TEF world

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Self-Assessment

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**29.17%**
Results from Post-Session Questionnaires

Confidence Marking of Clinical Application MCQs

CLINICAL APPLICATION QUESTIONS RELEVANT TO MY TRAINING (N=76)

- AGREE: 94%
- DISAGREE: 6%

CLINICAL APPLICATION QUESTIONS HAVE IMPROVED MY KNOWLEDGE (N=76)

- AGREE: 83%
- DISAGREE: 17%
Results from Post-Session Questionnaires

Confidence Marking of Clinical Application MCQs

Clinical application questions have developed my clinical decision making skills (N=76)

- Agree: 80%
- Disagree: 20%

Clinical application questions have helped me to prepare for the pharmacy prescribing skills assessment (PSA) (N=76)

- Agree: 54%
- Disagree: 46%
Results from Post-Session Questionnaires

Confidence Marking of Clinical Application MCQs

CLINICAL APPLICATION QUESTIONS HAVE HELPED ME TO PREPARE FOR THE GPHC REGISTRATION ASSESSMENT (N=76)

- AGREE: 82%
- DISAGREE: 18%
Confidence Assessment Exercise

For PSA Exam

Our aim was for the trainees to discuss not only their right or wrong answers but also their confidence and calibration with their placement tutors.

We got some interesting results.

Definitely in the context of:
- Resilience
- Employability
- Learning behaviours

Also in the context of:
- Our own implementation
- The framework that we create for learning
Assessment Drives Learning

Quotes from our focus group

The looming spectre of the GPhC exam

“I don’t really see the point in splitting it because it’s like [name] said, it’s not reflective of the actual exam so I just think what’s the point of doing it.”

Separate tick boxes (trainee suggestions)

“Maybe like beside it, sometimes if I’ve put a five and I’m not sure, but I’m like “this is my gut feeling” maybe to put beside it like a tick box of “I know this is the answer”, “I’m guessing this is the answer” “I don’t know what the answer is” or something like that so you can see “yeah I knew that because I know it” or “I’m pretty sure it’s this” or “the other one’s don’t look right” you know.

“Because that way you’ve assigned your confidence but it hasn’t affected your mark. So people might be more inclined to assess how confident they are if it’s not going to affect their overall mark
Assessment Drives Learning

Quotes from our focus group

Worried about tutor perceptions

“Yeah, because they get sent to our tutors, the mark. {another trainee in surprise DO THEY?}. People don’t like that because if you’ve split all your marks it doesn’t look like you’ve done very well and that’s what people are worried about all the time isn’t it. Making sure they’ve done well. So maybe they shouldn’t actually be sent to the tutor unless you actively take it to them? I don’t know.

Feedback was Poor

“Because I do find looking back at the questions now, I think it’s like an excellent revision tool but I don’t ever look at my confidence mark because I know at the time I just.. I didn’t really pay attention to it. But the questions themselves are really useful.”
Assessment Drives Learning

Quotes from our focus group

Definitely not a Lost Cause

“But I think it does prompt more discussion if you try to encourage people to assign confidence because then you can…….. it would prompt more discussion about multiple answers rather than just the correct answer. I know when I’ve gone through like past papers like these past exams, even if I was slightly unsure, if I ticked the right answer I don’t tend to go back to it too much, even though at the time I probably was slightly unconfident. So yeah, so yeah. But I sort of accept that I got it right and go oh yeah it’s fine.”

They Really Value Discussion

“I’d be more likely to split my answers in that case, I wouldn’t go oh I’m not sure, I’ll put five for this because when I share it with the group and they go “why did you put five, and we’ve gone with that? I’d be like no no no no no [laughing].”
Confidence Measure

**METRICS** have come into focus as we move into a new REF-TEF world.

This year we’ve seen a significant improvement in attainment in the PSA exam.

**Residential 2**
- Conf = 3.74
- grade = 49.75%

**Residential 3**
- Conf = 3.77
- Mean = 46.42%

**Residential 4**
- Conf = 4.05
- Mean = 62.85%

But we’ve seen very little improvement in learning behaviours.
Confidence Measure

METRICS have come into focus as we move into a new REF-TEF world

Keep the questions. We know they’re good

Use the scratch cards as well

i. Incentivise them to use the confidence format
ii. Encourage discussion and peer instruction
iii. Provide instant question by question feedback

Encourage them to discuss their results with their tutors

Train the tutors