

# **The impact of feedback and personality type on students' ability to self-assess skills, attributes and aptitudes**

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## **Background**

We demonstrate the phenomenon of 'incompetent and unaware' in a real world setting. This study sought to ascertain whether or not students' ability to self-assess was consistent across physical skills and cognitive aptitudes (measured by exam domains) and attributes (measured by the Conscientiousness Index<sup>1-2</sup>).

## **Summary of work**

193 medical students (years 1 & 2) participated in a self-assessment exercise, requiring predictions of exam grade in 3 domains; knowledge, skills, and behaviours. The exercise was completed in 3 parts. Part one, completed immediately after January exams, required students to predict their grade for each domain. Part two, completed one week after January exams, required students to both predict their grade and comment on any subsequent follow up actions for example; checked answers with staff or discussed exam questions with peers. This enabled us to see what factors influenced students when self-assessing exam performance. Part three, completed immediately after May exams, was identical in format to part one. Between January and May, students were given feedback on their ability to self-assess. Personality type, as deemed by the UKCAT, was correlated with self-assessment ability. Students also self-assessed the professionalism and that of their peers by predicting the Conscientiousness Index (CI) scores they had attained over the academic year.

## **Summary of results**

Failing students over predicted their exam performance. Merit students under predicted performance, and pass students accurately self-assessed exam performance. Students' ability to self-assess was not improved after a week of contemplation; most students reported discussing answers with peers and researching answers in lecture notes. Self-assessment of exam performance was consistent across all exam domains. Feedback improved failing students' ability to self-assess but had no impact upon merit students who under predicted their exam performance. Students were unable to predict their CI scores, but were able to predict their peers' scores. Ability to self-assess exam performance was not related to personality type.

## **Conclusions**

Ability to self-assess exam performance was consistent across physical skills and cognitive aptitudes (the 3 exam domains), but not attributes (conscientiousness). Personality type had no bearing on a students' ability to assess themselves, or their peers' exam performance.

## **Take home messages**

Failing students can become more self-aware with respect to exam performance if they are given appropriate feedback. Self-awareness is crucial for success; students need more guidance on this. Future work will look at why students are able to self-assess peers CI scores, but not their own.

## **References**

1. McLachlan, John C., Finn, Gabrielle M. & Macnaughton, Jane 2009. The Conscientiousness Index: A Novel Tool to Explore Students' Professionalism. *Academic Medicine* 84(5): 559-565.
2. Finn, Gabrielle M., Sawdon, Marina A., Clipsham, Laura & McLachlan, John C. Accepted. Peer estimation of lack of professionalism correlates with low Conscientiousness Index scores. *Medical Education* 43(10): 960-967