

Making use of entrustable professional activities with learning analytics for final-year medical students

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Abstract

Since 2020, our School of Medicine has been using entrustable professional activities (EPAs) for final-year students in the 5-year undergraduate medicine program. Development has been enabled by the MKM Myprogress (York, England) system, including web-based app for use on smartphones in the clinical workplace. The clinical content of the EPAs, based around the common clinical tasks of PGY 1-2 doctors has remained the same. The EPAs have demonstrated face validity for students and clinicians.

Learning analytics, custom designed for our purpose, now enables dynamic monitoring of student engagement and entrustment by supervision level. With visual representation of their own dashboard, students aim to complete the range of 16 EPAs. Key clinical administrative staff have access to the analytics. Students who require coaching are easily identified, where EPA detail is scant, and/or the students are falling short of the required 2 EPAs/per week across the year. The visual dashboards help staff and students alike.

This progressive assessment with EPAs, whilst actually contributing to patient care provides authentic evidence of student progression towards work readiness. The data accrued and analysed across 2021-22 has shown some trends in student performance, able to be looked at in the dynamic 2023 system. In the most recent year, this has influenced direction and guidance about use of the EPAs. There is an association between this EPA performance and our checkpoint case-based discussion examination.

This educational research and evaluation supports our innovative approach to assessment. Discussions with other medical schools suggest that this approach is not yet commonplace, albeit there is great interest. It relies on programmatic assessment principles including being part of the assessment system, the involvement of clinicians at all levels especially in hospitals and smart co-design with IT people from the vendor and the university.

References (maximum three)

Torre et al Ottawa 2020 consensus statements for programmatic assessment - 2. Implementation and Practice. Med.Teach. 2021; 43:1149-1160

Hobday PM et al The Minnesota Method: A Learner-driven Entrustable Professional Activity-Based Comprehensive Program of Assessment for Medical Students. Acad.Med 2021; 96:s50-55