Stakeholder Collaboration in UME Post-Assessment Analysis

The YourMD competency-based integrated medical school curriculum at Oregon Health & Science University (OHSU) launched in 2014 and replaced the previous traditional 2+2 discipline based curriculum. Woven throughout the seven curricular Blocks are eighteen “threads” ranging from ethics, informatics, communications, and safety to professionalism and clinical reasoning. The curriculum is divided into two phases: Foundations of Medicine (FOM) and the Clinical Experience Phase (CEP).

As part of innovating the YourMD program, frequent low stakes summative assessments are administered during FOM. Approximately 160-320 weekly multiple choice question (MCQ) exams using a secure offline assessment platform provide students with feedback on where they need to focus their study time. Additionally, there are anatomy lab exams, objective structured clinical exams (OSCEs) and higher stakes end of Block (course) final exams, customized exams comprised of retired board questions, and remediation exams.

In keeping with the Undergraduate Medical Education’s (UME) mindset for continuously improving education, we have developed multiple pre-assessment and post-assessment procedures. One of the most successful is the weekly post-assessment meeting. The weekly post-assessment meeting was initiated by the assessment team during the kick-off Block of the inaugural class of 2014. The goals of the post assessment meetings are three-fold: 1) Continuously improve the validity and reliability of weekly and end-of-block exams to fairly and accurately assess the concepts and objectives taught; 2) Provide stakeholders (i.e., faculty, educational leaders, and staff) with professional development opportunities in principles of teaching and assessment; and 3) Bring greater transparency to assessment grading for students.

To reach those goals, each person receives a detailed report of the overall (160 +/students) weekly MCQ assessment performance and flags low performing questions for review. Reports include all test items, rationales, faculty authors, linked teaching objectives, test item data points¹ and student feedback. As a stakeholder group, we first analyze and discuss question stems, distractors, rationales, and psychometrics for any question which performs below a 70%. Additionally, all feedback provided by students during the exam is considered in determining the clarity and fairness of the relevant question. Lecture slides with stated learning outcomes, study guides, and review materials are consulted during the meeting by all in attendance. Exams with faulty questions (e.g., there are two plausible answers, better distractors are needed) are adjusted before the results are released to the learners. Rationales are edited to include why credit for multiple answers was given if relevant. Any question needing real time edits are made for the next administration of the exam. Larger scale revisions or rewrites are

¹ Data points include: Upper Difficulty Index, Lower Difficulty Index, Discrimination Index, Point Biserial Correlation Coefficient, Kuder-Richardson Formula 20 (KR 20) and the Item Difficulty Index (p-value)
typically sent to faculty or Block directors. Occasionally, themes from student feedback are addressed either in a test item’s rationale or in person by the Block directors at the next class meeting. Students are made aware that all feedback is read and considered during the Transition to Medical School orientation phase and periodically throughout FOM.

Informal feedback from all stakeholders in the post assessment meetings continues to coalesce around the following major themes:

- Increased faculty buy-in and support of MCQ design requirements and guidelines instituted as part of the curricular overhaul;
- Value-added benchmarks through a comparison of exams and test items over time to document learning gains or opportunities for improvement;
- Enhanced comprehension and appreciation of test item and assessment psychometric data in context;
- Rapid ability to correct curricular misalignments and document strengths over time;
- Accelerated identification of struggling students to provide learning support and interventions;
- Increased student “voice” in assessment process, content, and decisions.

Perhaps equally important to the desired outcomes of assessment improvement, these frequent meetings demonstrate conscious engagement of educational stakeholders (e.g., teaching faculty, educational leaders, assessment professionals, students etc.) and dovetails with the requirements of OHSU’s regional accreditor and with the accreditation standards of the Liaison Committee on Medical Education for Association of the American Medical Colleges.

Resoundingly, the post-assessment meetings have had an unforeseen but welcome result. They have provided a foundational sense of shared purpose. Over time, the hard work of educational leaders, faculty, and assessment professionals towards the shared goal of assessment and program improvement has engendered a collegial bonhomie. This feeling of mutual goodwill is helpful in our continued efforts to further transform the curriculum into one of truly time-variable progression and better process cohesion in light of the strategic planning in which all institutions partake.