

In-Course Enrichment (ICE) to Enhance Student Success

Martha L. Elks, MD, PhD, Ngozi Anachebe, MD
Morehouse School of Medicine

Innovation Identified

Morehouse School of Medicine (MSM) is a historically black free-standing school of medicine, established in 1975 to recruit and train minority and other students committed to the primary care needs of the underserved. We have been successful in recruiting a diverse student body, with about 75% of students from groups underrepresented in medicine. We have been recognized as number one in social mission (Mullan, 2011). Moreover, we have been successful in student retention and progress, with an attrition rate below 2% and pass rates on USMLE step 1 regularly exceeding national pass rates (and scores at national mean) in spite of students' entering credentials with mean MCAT about one standard deviation below the national mean.

In order to support academic excellence and timely progress with an integrated curriculum, we developed ICE—in-course-enrichment, in order to optimally support academically diverse students with resources aligned with their needs from the earliest point in the curriculum that needs are identified.

Need/Gap Addressed

In an integrated UME curriculum, course duration is often focused and brief. Since our first core course is completed over the initial 10 weeks of matriculation, and many students, especially academically vulnerable students, face challenges adapting to the relentless pace of medical education. We recognized that we needed to have robust processes that identified and addressed learning needs very early in the term. Based on prior studies at MSM, we determined that entering credentials were not predictive of academic performance in the first semester or overall. We did identify that low performance on the first or second exams was a high risk situation.

Stakeholder Input

Based on an analysis of student grades across the first year, we identified scores that predicted high, medium, and low risk of academic delay. Based on the experiences of faculty with prior students, we developed and implemented a process of comprehensive needs assessment and a spectrum of academic supports for students. Those at high risk were required to participate. Those at medium risk we welcome to participate in the evaluation and the support. Support included tutors, faculty-led problem-solving sessions, explicit study skills, and other supports.

These supports were also combined with course policies that provided a “safety net” for first semester courses. Students could replace failing grades with passing score upon demonstrating mastery of key concepts. Because the curriculum is incremental, building on basic concepts,, it has been important to assure that students master core concepts in a timely fashion.

We have expanded this process to the second year UME curriculum (which has a different structure). We have also developed and used individualized decelerated curricula (usually second year material over 2 years). With these supports, we are able to sustain low attrition rates (less than 2%) and high success rates and scores in a population that is considered over 90% “high risk” based on entering credentials (MCAT & GPA).

Resources Needed and Potential Barriers

Resources needed

- centralized team supporting the curriculum
- experienced and engaged faculty team
- online exam software and staff for trend analysis
- near-peer student tutors
- faculty time for faculty-led tutorials
- faculty monitoring team

Barriers

- faculty time
- student resistance to receiving help
- scheduling and space for the sessions

Timeline Proposed

If a program already has centralized support of the curriculum and exam outcomes analytics, and an experienced and dedicated core team of faculty educators, this could be implemented within a year. If not, then one should allow at least 1 year for implementation of centralized exams and support and a minimum of one year for the development of skills for the core faculty team (minimum of 5, better with 10 or more faculty with long-term experience with teaching and testing preclinical UME curricula --representing all core content areas of curriculum).. Near-peer tutors are selected from high-performing students from the prior year (both 3rd and 4th year students used to support second year students). These can be trained and implemented within a year.

Institutional Contact

Martha L. Elks, MD, PhD, melks@msm.edu
Ngozi Anachebe, MD, nanachebe@msm.edu
Brandi Knight, PhD, bknight@msm.edu
Brenda Klement, PhD, bklement@msm.edu.

