**Learner Analysis by Smita Krishnamurthy**

**Learner Demographic Questionnaire:**

<https://wright.qualtrics.com/SE/?SID=SV_6LH948LoXKNv9BP>

**Description of Population:**

1. **Target population:** This learning module targets medical students during their fourth-year clinical clerkships at the Boonshoft School of Medicine.
2. **Commonalities between participants:** All learners are fourth year medical students at the Boonshoft School of Medicine and have undergone similar preclinical (first and second year) and third year clerkship requirements. Overall, they are an intelligent group of learners motivated to master material which impacts their future career goals in medicine. They are technologically savvy and comfortable with an online learning environment.
3. **Differences between participants:** Learners range in age from 20 to 35 years with a roughly equal distribution of men and women. Students vary in their level of interest in applying basic science principles towards patient care. They differ in their choice of medical specialties ranging from primary care fields such as internal medicine, family medicine, pediatrics, and psychiatry, to subspecialties such as emergency medicine, orthopedic surgery, dermatology, and radiation oncology. They also differ in their life experiences including their undergraduate and/or graduate focus, previous employment, cultural background, marital status, religious background, socioeconomic status, and motivation for pursuing a career in medicine.
4. **Range of ability between participants:** The majority of students have graduate-level reading and analytic skills; however, there is a subgroup of students who have some difficulty in reading and understanding complex scientific material. There is a wide range of student abilities with respect to test taking skills and mastery of basic science principles as evidenced by their performance on national board exams.
5. **Motivation:** This is a required module for all fourth year medical students. Therefore, the primary motivation will be completion to ensure medical school graduation. I recommend providing multiple different online modules for students to select from. This will allow learners to choose topics that are most interesting to them and applicable to their future specialty.
6. **Non-instructional needs:** Because this is an online module, non-instructional needs such as adequate sleep, nutrition, and safety should be met outside the classroom. It will be important to manage the availability of the online modules in a way that gives students adequate time to access and reflect on the modules even when they are on challenging clinical rotations with night call responsibilities. Technical support may be needed when students use the online learning management system to access the learning modules. Contact information for the computer help desk should be provided for student assistance.
7. **Strategies for making instruction more effective for the target group:** To make these modules more engaging and effective for the learners, we should emphasize how the presented information will apply to their future medical practice. A variety of modular topics should be provided for students to choose from. For example, a student planning on entering a family medicine residency may be more interested in a module on diabetes, whereas a student interested in orthopedic surgery may choose the fracture module as more applicable.

To engage this group of learners, it will be helpful to emphasize application of basic science principles in a real-world context by including patient scenarios and reflection activities based on previous patient encounters. For example, instead of providing a journal article or presentation on diabetes, learners will be more engaged with the material when asked to apply their basic science knowledge about the pathophysiology of diabetes to decide which tests to order and how to treat a patient presenting with signs and symptoms of diabetes.